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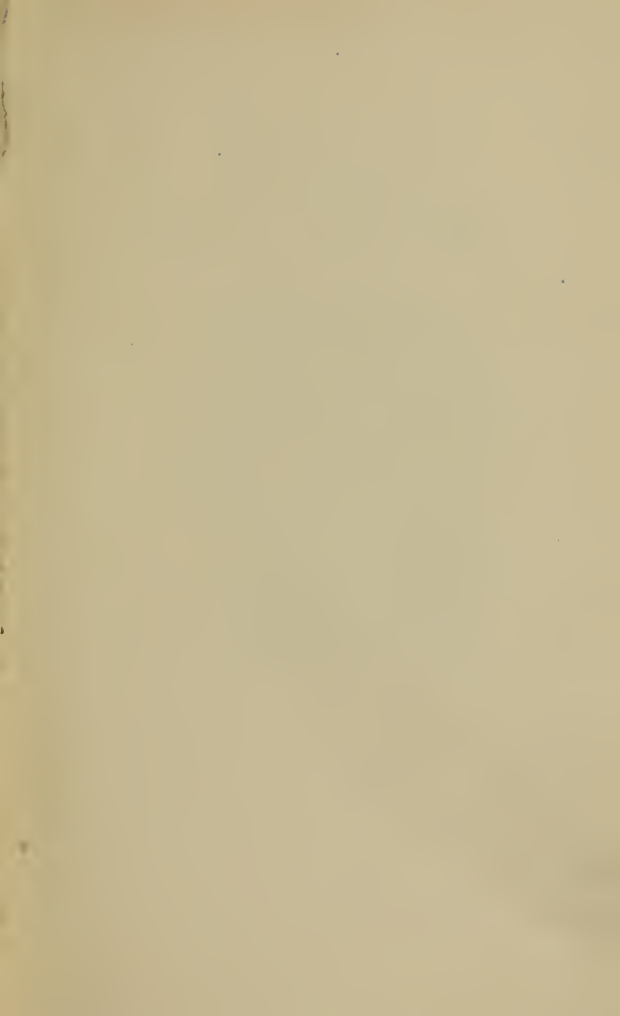
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GOVERNMENT PRINTING OFFICE



THE
WOMAN'S
MEDICAL COMPANION.



EXERCISE OF CHILDREN

Clasped in her arms, his arms around her flung,
That name as others ever on his tongue,
She courts for him the breeze, for him she speeds
Along the hill and vale, or for the rushing flood

Page 187

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THE
WOMAN'S
MEDICAL COMPANION,
AND
NURSERY-ADVISER:

CONTAINING

Rules for Preserving the Health of Unmarried Females;
Directions to Pregnant and Lying-in Women;
and an Account of their Diseases;

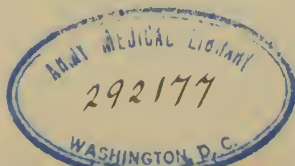
TOGETHER WITH

Instructions for the Rearing of Children from the hour
of their Birth; and an Account of the
Diseases of Infancy.

BY

HENRY McMURTRIE, M.D.

PHILADELPHIA:
T. ELLWOOD ZELL,
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1871.

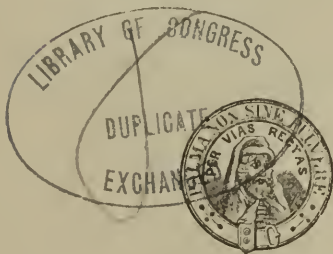


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PUBLISHER'S ADVERTISEMENT.

THE rapid sale and universal approbation which the COMPENDIUM OF DOMESTIC MEDICINE has met with, have induced the Publisher to engage the talents of the same Author in the production of a MEDICAL COMPANION expressly for the use of FEMALES.

Availing himself of hints obtained from different respectable sources, he here presents to the public an account of the causes, symptoms, and treatment of those Diseases which are peculiar to the Female sex and to Infants: he has embraced in it, also, the general rules for the Preservation of the Health and Comforts of Females during the Single and Marriage state; and directions for the proper Rearing of Children in reference to their Diet and Regimen: whilst in an Appendix is added a short treatise on that all-absorbing subject, Epidemic Cholera.

The Publisher feels persuaded that the work will be found in every respect worthy the attention of the sex to which it is especially dedicated ; and that Mothers will find in it a useful manual of instruction for their guidance during Pregnancy, in the Lying-in Chamber, and in the Nursery.

The same Publisher issues (by the Author of the Woman's Medical Companion).

A COMPENDIUM
OF
DOMESTIC MEDICINE,
AND
HEALTH-ADVISER :

CONTAINING

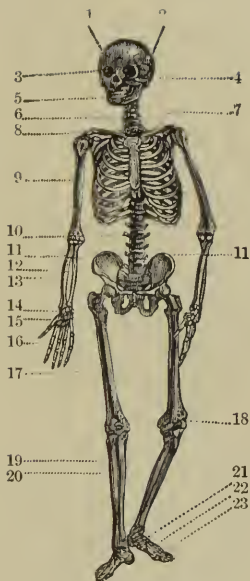
A Statement of the Modes of Curing every Disease to
which Man is liable ; and Directions in case
of Accident on the Road or at Sea ;

WITH

A Minute and Particular Account of Epidemic Cholera,
Dyspepsia, and Sick-Headache ; their Causes,
Cure, and Prevention ;

AND

A Popular Description of the Human Teeth ; their
Formation, Diseases and Treatment.



HUMAN SKELETON.

1, Frontal bone 2, parietal bone. 3, orbit. 4, temporal bone. 5, lower jaw. 6, cervical vertebrae. 7, clavicle. 8, shoulder-blade. 9, humerus. 10, lumbar vertebrae. 11, ilium. 12, ulna. 13, radius. 14, carpus. 15, metacarpus. 16, phalanges. 17, femur. 18, patella. 19, tibia. 20, fibula. 21, tarsus. 22, metatarsus. 23, phalanges.

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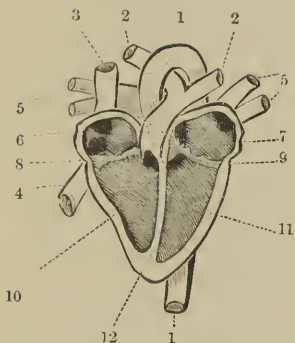
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THEORETICAL SECTION OF THE HEART.

- | | |
|----------------------|----------------------|
| 1. Aorta. | 7. Left auricle. |
| 2. Pulmonary artery. | 8. Tricuspid valve. |
| 3. Vena cava sup. | 9. Mitral valve. |
| 4. " inf. | 10. Right ventricle. |
| 5. Pulmonary veins. | 11. Left ventricle. |
| 6. Right auricle. | 12. Septum. |

THE
WOMAN'S
MEDICAL COMPANION.

INTRODUCTION.

THE means by which the full development of the body, and the health, vigour and activity of the human system, are best promoted and maintained, are, unfortunately, too little attended to by the Female sex. And yet to their consideration the female is urged by the powerful motives of duty and self interest. Beauty cannot, in reality, exist, independent of health: the means which tend to preserve the one being equally calculated to improve and promote the other;

while the first is absolutely unattainable by any practice inconsistent with the latter. In vain does the female hope to improve her skin—to give a ‘roseate hue’ to her complexion, or to augment the grace and symmetry of her form; unless she is cautious to preserve the whole frame in health, vigour and activity. Beauty of complexion, and, to a certain extent, that of shape also, is nothing more than visible health—a pure mirror of the perfect performance of the internal functions of life, and of their harmony with the external portions of the system—the certain effects of pure air, cheerfulness, temperance, and of exercise unimpeded by any species of unnatural restraint.

There is however a still more important reason why, independent of all considerations connected with *personal* comfort and happiness, this subject should occupy the attention of the Youthful fair;—the well being of those who may owe to her their existence. The fact—that upon her own health depend, in a very great measure, the health, freedom from deformity and future

usefulness, often the very life of her offspring—cannot fail to recommend those means, most strongly, to the attention of her who desires to be hailed by the endearing appellation of mother—and to experience the happiness of beholding herself surrounded by a healthful and joyous offspring. It is a solemn truth, that no female has any right to expect in the child to which she gives birth, what she does not herself possess—a sound, well formed and robust frame. She, therefore, who neglects her own health, or, in the pursuit of folly or of dissipation, exhausts the energies of her constitution, will, in the majority of cases, either be doomed to be a childless wife, or be cursed with a short-lived, deformed and puny race of offspring, the hapless victims of a mother's folly.

Such being the importance of Health to Females, a work which, like the present, exhibits a brief exposition of the manner in which it is most certainly to be obtained and preserved, will, we are persuaded, be received by them with approbation, and claim their serious attention

THE FIRST PART is devoted solely to the means of Preserving the Health and promoting the perfect development of the constitution of the *Unmarried Female*. In the chapters devoted to Dyspepsia and to Training for Health, will be found a very full account of the causes and symptoms of one of the most distressing and common complaints of the female sex, with the means for its prevention and treatment.

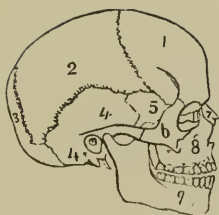
It is not, however, during youth merely, that the female commits the greatest errors. They are often persisted in after Marriage, and, added to an improper course of conduct, the result of ignorance and prejudice, during Pregnancy and the Lying-in state, jeopardize the life of her offspring, and entail upon the mother suffering and disease which often last for the remainder of her days. The SECOND PART of the work, therefore, is addressed to the *Married Female*, and embraces the Cautions to be observed in order to insure the Health of the Mother and the Life of her Child, during these two important periods.

As the early treatment of Infants exerts a powerful influence upon their subsequent health, comfort and usefulness, in the THIRD PORTION of the work we have entered very fully into the proper method of *Rearing Infants*; giving minute directions for their management immediately after birth, and during the subsequent periods of childhood.

In the FOURTH PART, the causes, symptoms and general treatment of the more prominent *Diseases of Women* are detailed : not with the view of teaching the fair reader to be her own physician ; but to point out to her the early indications of those affections, and to show her the immense importance of an early resort to proper medical advice. It is an unfortunate circumstance, that, for the want of this information, such diseases are too often overlooked in their first stages, or from a false sense of delicacy concealed, until they have advanced so far, that the best directed efforts of the most skilful practitioner fail in their removal.

THE FIFTH PART treats of the symptoms and management of the *Diseases to which Young Children are ordinarily liable*. It is believed that a large number, if not all of these diseases may be prevented by a proper attention to diet and regimen; or, when they do occur may, by the same means, be very promptly and effectually removed. It is to these means, therefore, that our instructions are especially directed, advising always, whenever the administration of other remedies becomes indispensable, a resort, without delay, to regular professional aid.

FINALLY, we have annexed an account of the causes, means of prevention, symptoms and treatment of the *Asiatic or Epidemic Cholera*. Although not a disease to which the female is more particularly subject than the other sex; it is nevertheless a topic of such general and appalling interest, and one in relation to which the diffusion of correct information is of so much importance, that we have been unwilling to omit it, and we are convinced that every reader will be pleased with its introduction.



SIDE VIEW OF HUMAN SKULL AND FACE.

- 1, Frontal bone. 2, Parietal bone. 3, Occipital bone. 4, Temporal bone (squamous portion). 4*, Do. (mastoid portion). 5, Sphenoid bone. 6, Malar bone. 7, Nasal bone. 8, Superior maxillary or jaw bone. 9, Inferior maxillary or jaw bone.

PART FIRST.

PRESERVATION OF HEALTH IN THE
UNMARRIED.

CHAPTER I.

NECESSITY OF AN EARLY ATTENTION TO HEALTH.

Confinement of young girls injurious—Free exercise in the open air as important to them as to boys—The sports of both sexes during early youth should be the same—Dress of young girls—Delicacy of constitution no recommendation to a female.

To be productive of any great and permanent advantage, attention to health should be commenced early in life. Infirmities contracted in childhood are not only apt to continue, without the possibility of their removal, throughout life, but most generally their tendency is to augment with increasing years. Often, the injury which has been inflicted during youth on certain organs escapes entirely our notice, until the body has acquired its full growth, and the functions of

those organs are then first called into action. How many a wife has had her own life endangered, and has been denied the pleasure of a living offspring, from the injury which the womb has suffered by an improper dress during girlhood—how many a mother has been obliged reluctantly to forego the delightful duty of suckling her babe, in consequence of the obliteration of her nipples, or a diseased condition of her breasts, caused by that ridiculous and pernicious article of female attire, a tightly laced corset, worn previously to her marriage.

But it is not alone from errors in dress that the sufferings of the female are liable to result. That sickly, feeble and nervous condition to which so large a number are reduced, particularly in the more opulent classes of society, arises, in the majority of cases, from the neglect of physical education, during the period which intervenes between infancy and full maturity—and the absurd opposition which exists between the dictates of fashion, and the instinctive calls of nature, so forcibly displayed in the young of both sexes by their fondness for active and even boisterous amusements. Between the sons and daughters of a family a most pernicious distinction is made in the course pursued towards them during childhood. While the first are allowed the free and natural use of their limbs in the open air for many hours of the day; the latter are immured, almost from morning to night, within doors, while every motion of their bodies

is attempted to be drilled according to some fashionable standard,—every deviation from which is punished as an outrage against good breeding and female propriety. The consequence is, that the countenance of the brother is marked with the ruddy glow of health—his keen appetite is satisfied with the plainest food, and his sleep is sound and refreshing like that of early infancy: while the pallid cheek of his sister, the loathing of her food, and her disturbed and broken slumbers point out but too plainly the baneful effects of the system of confinement and restraint to which she has been subjected.

The free use of air and of exercise is the common gift of heaven, from which none should be debarred, from motives of small importance; and yet how often does an over anxiety for delicacy of complexion in their daughters, or the apprehension of their becoming romps, cause parents to restrain them from indulging in either, in a degree sufficient to secure them from that feeble, sickly, languid state, which so frequently renders them not only capricious and miserable, but helpless, so far as it regards their fulfilment of the active duties of life, through the whole period of their existence! There is no good reason whatever, for maintaining any sexual distinctions, in the bodily exercises of children: if it be right—and no reasonable parent will deny that it is—if it be right to give to both sexes all the corporeal advantages which nature has formed them to enjoy, let them both partake of the same rational

means of obtaining a flow of health and animal spirits, a vigour and perfect development of body, which shall enable them to perform the functions and duties of life, without endangering their own existence or the health and happiness of those who may depend upon them for their being. Let then girls be no longer confined to sedentary employments in the nursery, or at best be permitted to take a slow and formal walk in a garden, as an apology for more vigorous exertions; while their brothers are allowed the unrestrained enjoyment of their limbs, regardless of spoiling their clothes or acquiring ungraceful motions; and in despite of the inconveniences of the various seasons. We desire not that our females should be so educated from their infancy, as to rival the ancient Spartan in their masculine characters and unfeminine acquirements; but that in youth so much attention should be paid to the strength, perfection and health of their bodies, that they may be enabled to escape the diseases and infirmities to which a delicate and feeble frame must inevitably subject them, and be better fitted, in consequence, for fulfilling the important duties of the stations for which nature has destined them—those of Wife and of Mother!

The first occupations of the day for children of both sexes should be abroad, for the benefit of inhaling the morning air: not that their exercises should be confined solely to that portion of the day—on the contrary, when the weather

permits, they should live out of doors as much as possible, without interfering with their studies and such other avocations as unavoidably require their presence within doors. But the hours devoted to these latter, particularly in early childhood, should be short, and separated by intervals spent in such recreations as children love: never should they be confined long at a time in a sitting posture—nothing is more irksome, more injurious to health, or more liable to produce contortions and other deformities of the body.

A mere walk will scarcely supply sufficient exercise to a girl to produce that freedom of circulation through every portion of the body, by which the proper growth and health of the whole is promoted; something, therefore, more active should be adopted; running races, trundling a hoop, skipping with a rope, battledoo and shuttlecock, jumping, swinging and many other amusements of the like nature, are suitable for the purpose, and may, with equal propriety, be practised by both sexes. None of them are by any means incompatible with delicacy of person and genuine modesty and grace of manners. Let it never be forgotten that true delicacy consists in purity of sentiment, and is as much superior to its substitute—artificial manners, as a real gem is to its counterfeit.

Though girls may not be able to bear the extremes of heat and cold, so well as boys; yet, by proper precautions and sufficient clothing,

they will feel less inconvenience from the open air in winter, and be less liable to be injured by the coldest weather that is experienced in our climate, than if they were kept carefully housed without exercise. It is a mistaken notion, however, into which some parents have fallen, that children should wear the same clothing in winter as in summer, in order to make them hardy and inure them to the cold—in this changeable climate, their dress should be regulated by the weather. For girls, warm flannel petticoats, worsted frocks and woollen stockings are essentially necessary in maintaining their bodies of a proper temperature and thus enabling them to bear with impunity a sufficient degree of exposure to the open air. Warmth, lightness and convenience are essential requisites in the dress of every child. Insufficient clothing, as well as that which tends in the slightest degree to impede the motion or compress any part of the body, is destructive to health and injurious to the perfect and graceful development of the youthful frame.

The common system of female education, and the code of fashionable maxims early imprinted upon their minds, have a very great tendency to induce in women the greatest of all absurdities—that of valuing themselves upon the delicacy and tenderness of their constitutions. This is indeed making a glory of imperfections; which very naturally they are prompted to increase, for the very purpose of rendering themselves still more

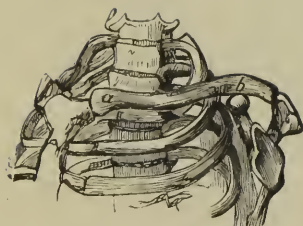
interesting and attractive. But all deviations from perfect health—every deficiency in the vigour and activity of the system, even when unavoidably produced, can be viewed in no other light than as an imperfection from which every really sensible female should desire to be free. She that, from the infirmities of her constitution, cannot bear the least fatigue or unusual hardship, nor rest a moment contented without being surrounded by all the luxuries and elegances of life—and who is rendered miserable by each breath of air and every change of weather: though we should not, perhaps, hold her up as an object of contempt, any more than we should the individual who is lame of a leg or has lost an eye; yet should we look upon her as a person labouring under defects calling for our pity and commiseration, and which folly alone can mistake for subjects of admiration and applause.

CHAPTER II.

EARLY RISING.

Its neglect injurious to health and beauty, and inimical to comfort during the day—Importance of early retiring—Night the proper period for repose.

FEMALES, we suspect, more frequently than the other sex, sin against that law of Hygeia which calls her votaries early from their couch; men being generally compelled by necessity, by the calls of interest or of ambition, to forego the indolent practice of indulging in their beds until a late hour of the morning. Nothing, however, is a greater enemy to the health and we may add, likewise, to the beauty of women, than late rising. In conjunction with her sedentary habits, and general neglect of exercise, it renders her pale, languid and sickly—destroys



a, b, THE CLAVICLE



her appetite—emaciates her body and lessens the cheerfulness of her mind.

Spending half the morning in bed is a habit into which many females fall from mere indolence and without the least suspicion of its injurious consequences. Like all evil habits, too, it is one which becomes by indulgence extremely difficult to break through. Hence the importance of acquiring early in life the practice of early rising. The agreeable sensations and general feeling of well being to which it gives rise will prevent it ever after from being relinquished. Many a fair and fashionable miss we have heard complain of a want of appetite for her breakfast, of experiencing no refreshment from her night's repose, and of sundry uneasy sensations; in whom the sole cause of all this, has been the relaxation which her system has suffered from her morning's indulgence in bed. The same individual we have known quickly to regain her appetite, and to experience all that renewal of strength and alertness which the repose of the night is designed by nature to impart, when, summoning resolution to her aid, she has roused herself betimes, and, quitting her chamber, engaged at once in some active occupation; for we may remark, in passing, that by lounging away the morning in the bed-room all the benefits resulting from early rising are in a great measure impaired.

It may be esteemed vulgar to consider robust health and vigour of body as necessary to a

young and fashionable female; but even such an one must admit that rosy cheeks, sparkling eyes, and a cheerful countenance are at least desirable attractions, and these, we assure her, are as certainly to be gained and preserved by early rising, as they are to be impaired or destroyed by its neglect. A vitiated taste may affect to despise the ruddy countenance and well knit frame of the rustic maiden, whose cheeks are fanned each morning by the first breezes of the opening day, as the insignia of vulgarity; but the heart of man feels their irresistible attraction, and his understanding confirms him in so just a preference. Surely the languid sickly delicacy produced by confinement and luxurious indolence, cannot be compared to the animated glow and cheerful elasticity of health.

It would be well for females, could they be convinced that by late rising not only their health and charms suffer, but the comforts and enjoyments of their waking hours are materially impaired. With the late riser all is hurry, bustle and confusion. She may fidget after the hours, wasted in the morning nap, all the following day, but can never overtake them—the very attempt to do so inevitably destroys all relish for amusement, and produces an imperfect performance of every duty or task which it is important to have completed by a certain hour. It is sometimes urged in extenuation of the morning's indulgence, that youth is always heavy to sleep—Yet, how few are there

of either sex, who cannot emulate the lark in early rising, when pleasure or amusement calls them forth. We awake and become sleepy at certain hours; just as regularly as we become hungry or thirsty at those periods at which we have been long accustomed to eat and to drink. All these things are mere matters of habit with the great majority of both young and old; and let our fair readers be assured that industrious and regular habits are as readily acquired as idle ones, and when acquired are far more agreeable. It is vain, however, for them to expect any decided advantage from habits of early rising, unless, when they are up, they make the most of their hours—and cautiously avoid idling them away in inaction, or in employments equally as pernicious in their effects as the morning lounge in bed.

Intimately connected in importance with the practice of early rising, is that of retiring to rest at a regular and seasonable hour in the evening. Of all the evils of fashionable dissipation, there are few which contribute more to impair the health, deface the brightest charms, and shorten life, than the habit it induces of keeping late hours, and consequently of spending the morning in unrefreshing repose. Its evil effects may, it is true, be at first imperceptible; but, if persisted in, the habit invariably undermines the strongest constitution, and renders haggard and pallid the finest countenance.

The mind and body are kept excited at a period when nature requires that they should

both be in a state of repose—while improper food and drinks are forced into a stomach already tasked with the digestion of that taken during the day; these circumstances, in conjunction with the heated and impure air of crowded apartments and subsequent exposure to the chill, damp atmosphere of the night, cause every function of the system to suffer, and plant in the frame the seeds of some fatal, or lingering and severe disease which neither time nor art can eradicate.

It is often urged by those who indulge in late hours, that it is immaterial at what period repose is taken, provided they do not spend a longer time in bed than the observers of early hours; in this, however, they are much mistaken—To turn the day into night is a complete inversion of the seasons appointed by nature, an outrage which she will never allow to pass with impunity. Even when they are spent in labour or in studies, late hours naturally lead to a certain degree of febrile excitement and proportionate lassitude—the stomach is invariably impaired and the appetite diminished: while all these morbid symptoms are increased when the hours stolen from the night are devoted to company and to dissipation.

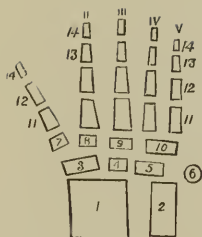


DIAGRAM OF THE BONES OF THE HAND,
(with the ends of the Radius and Ulna.)

1, end of radius. 2, end of ulna. 3, scaphoid. 4, semi-lunar. 5, cuneiform 6, pisiform. 7, trapezium. 8, trapezoid. 9, magnum. 10, unciform. 11, 11, metacarpal bones. 12, 12, first row of phalanges. 13, 13, second row. 14, 14, third row. I, thumb. II, fore-finger. III, middle-finger. IV, ring-finger. V, little finger.



CHAPTER III.

EXERCISE.

Importance of exercise to females—beneficial to health and beauty—must be in the open air—Walking—its advantages—Riding on horseback—In-door exercises—Dancing—Precautions in regard to dancing—Calisthenics—Swinging—Reading aloud

THE occupations of females, the duties they are called upon to perform, and even the diversions to which they are restricted by the arbitrary requirements of fashion, cause much of their time to be passed within doors and in a sedentary position. To them, therefore, a certain amount, daily, of active exercise in the open air, is of paramount importance in counteracting the pernicious effects upon their health produced by the confinement and comparative

inaction to which they are condemned during so large a portion of the day.

Exercise is unquestionably one of the very best means for the preservation of health; but its real importance is unknown, or but too lightly considered by the majority of females. Were they, however, to be made fully sensible of its extraordinary power in preserving the vigour of the body, in augmenting its capability to resist disease, in promoting its symmetrical development, in improving the freshness and brilliancy of the complexion, as well as its influence in prolonging the charms of beauty to an advanced age; they would shake off the prejudices by which they have been so long enthralled, and not voluntarily abandon means, so completely within their power and so simple, of enhancing all their physical perfections. But let it be recollected, that, to produce its beneficial effects, exercise must be taken in the open air. Not all the occupations appertaining to the domestic duties of a female—though they may require her to bustle from garret to cellar, will impart that kind of action to the different portions of the body, by which her health and beauty shall be essentially improved. It is only by exercising in the open air—‘while her cheek is visited freely by the breath of heaven’—that so desirable an effect can be obtained.

One of the very best species of exercise to which a female can have recourse is Walking. It is the one which most equally and effectually exercises every part. It calls into action no

only every limb, but every muscle, assisting and promoting the circulation of the blood throughout the whole body, and taking off from every organ that undue pressure and restraint to which all are subjected by a sedentary position when long continued. This agreeable and beneficial exercise is, we are sorry to say, too much neglected by females at every period of life. The more opulent would appear to consider walking, if frequently indulged in, as too vulgar an amusement; whenever they attempt it, therefore, their walks are so circumscribed, and they move along with so little exertion and in so listless a manner, that they forfeit very nearly every advantage their health would otherwise derive from it—and all this, lest they should happen to be confounded with the busy, bustling female, whose humble situation in life releases her from the crippling influence of fashion, and who uses her limbs in the manner nature intended they should be used; never hoping to combine in a walk, as the more fortunate of her sex would appear to do, the luxury of inaction with the benefits of motion.

To those of our fair readers who have long indulged in habits of indolent repose, a walk of from two to four miles would no doubt appear to be an effort too violent far to be encountered, and to be suited only to such females as are compelled by necessity to bodily labour for their daily subsistence; and yet it is precisely such an amount of exercise as they stand most in need of. By the more opulent of both

sexes bodily exertion of almost every species is viewed too much in the light of a punishment or, at least, of a degradation from their assumed importance; and hence one of the reasons why it is so little resorted to either as a recreation or a duty. Notwithstanding young ladies in particular may affect to condemn this noble exercise, so well adapted to the wants of individuals at every age and in every situation of life; we can confidently recommend it to them as an effectual remedy against lowness of spirits and the pains of *ennui*—as the best cosmetic to which they can resort, for preserving the lustre of the skin and the roseate tinge of youth and beauty.

Riding on horseback is another useful as well as graceful means of exercise, too much neglected by the females of this country. Though we cannot say that a Diana Vernon is exactly the female we should most admire, yet we could wish to see imparted to our young ladies some portion of that enthusiastic girl's love for active sports. A canter for a few miles is a most admirable promoter of beauty and of health. The cheeks, the eyes, the lips and every feature of the fair equestrian, when she dismounts, possess that fresh and sparkling grace, which is one of the most important requisites in female loveliness, and which can be imparted only by the purity of the blood and its brisk and equal circulation, which are produced by temperance and exercise. The pale, sickly, and languid countenance of that female whose hours of leisure have

been passed without occupation within her own chamber or in listlessly lounging upon a sofa or a couch, may present attractions to such as have selected their standard of beauty from among the victims to a round of fashionable dissipation; but every man of sense and genuine taste will prefer the ruddy glow of health, the active, agile step and exuberant gaiety of her who has spent some hours of every day in active exercise on foot or on horseback in the open air; and when the capabilities of the two, for performing their duties as wives and mothers, are taken into account, the first may receive his pity, but it is the last only that can be the object of his love.

From what has now been said, it will be perceived that we place little importance, as a means of preserving health, on any kind of exercise which is not carried on in the open air. A certain amount of the latter, we repeat, is absolutely necessary to maintain the health and vigour of the human frame, and can be as little dispensed with, without serious injury ensuing, by the female as by the male. But we are not enemies to in-door exercises, provided they be not adopted to the exclusion of the former.

Dancing is an exercise which imparts, at the same time, strength to the body, and ease and gracefulness to its movements. The elevation and gaiety of spirits which it occasions, are well calculated to counteract the injurious effects of the sedentary occupations of young ladies, at

those seasons when exercise out of doors is prevented—while it is still further recommended from the salutary influence which it has in establishing perfectly that function so intimately connected with female health and comfort. It is a means also of preventing deformity; and even when there is no danger of that, all must admit its advantages as a means of making young people of both sexes stand, walk and sit, and even look and speak to advantage.

In order to derive the full benefit of this pleasing exercise, it should be performed in a large room, with the windows open in mild weather, and in one without a fire in winter: in this manner the air is preserved fresh, and the effects of immoderate heat avoided. Dancing, let it however be recollected, is beneficial only when it is indulged in moderately, and in a dress in which every limb and muscle is allowed to participate freely and naturally in the motion which dancing communicates to the whole body. The tight-laced votaries of the ball and midnight assembly have not unfrequently in the dance acquired the seeds of disease which has consigned them in a few months to the tomb. By most young ladies an hour or two between breakfast and dinner may be occasionally well employed in the exercise of dancing, and a like space of time in the early part of the evening. It is when partaken in the family circle that this amusement is the least liable to be abused, or made a mere excuse for personal display.

Calisthenics, or that series of regulated movements and efforts which have been designed with the view of exercising moderately the muscles of young ladies, has become the more indispensable in civic life; since the opinions of society tyrannically forbid their indulgence in those free and innocent gambols which are so essential to the proper growth and perfect health of their internal as well as external organs. By a series of Calisthenic exercises, perfectly adapted to their strength and the particular condition of their bodies, that graceful motion which is so entirely dependent on an invigorated and harmonious development of the agents of locomotion may be greatly promoted; and even most of the defects, consequent upon previous habits of inaction and improper and constrained positions of the body long indulged in, may be completely removed.

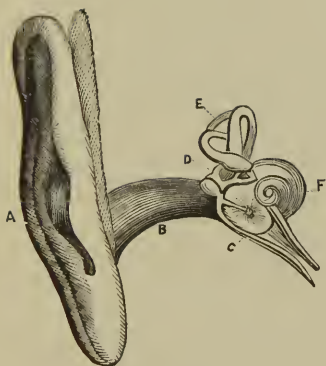
Singing and reading aloud are both agreeable species of exercise, but of a very limited character. They both constitute an admirable relaxation from more serious and active employments, and contribute in no small degree to augment the comfort and the cheerfulness of the family circle.

CHAPTER IV.

CLEANLINESS.

Its importance—The frequent application of water to the skin not injurious—Frequent ablution of the whole surface necessary—Functions of the skin—Spunging and frictions—The warm bath, its advantages—Cleanliness of the clothing.

EQUALLY important to the female with exercise is Cleanliness of Person. It may seem a little strange that we should think it in any degree necessary to recommend cleanliness to the fair sex; the very idea of the want of which is degrading to every thing we can conceive of in female decency and loveliness. We are far, however, from intending to convey the most distant insinuation of their negligence in this respect. We only desire, by pointing out to



THE EAR.

A, External Cartilage. B, Auditory Passage. C, Tympanum and Eustachian Tube. D, Stapes, Incus, and Malleus. E, Semi-circular Canals. F, Cochlea or Shell.

them its intimate connection with health, and its powerful influence in promoting personal comfort and beauty; to heighten their conviction of its importance, and to indicate the means by which it may the most effectually be maintained, and its beneficial effects increased. Females, with all their scrupulous attention to cleanliness, are in this country at least too sparing in their use of water. Many ridiculously suppose that its free and repeated application to the skin gives it a disagreeable roughness, and otherwise injures its beauty. This, however, is a very great and pernicious error. Pure water, of a proper temperature, may with propriety be considered the fountain of health, as it is to a certain extent that of beauty also; and its frequent use to the whole surface of the body is one of the most effectual means of improving the skin and strengthening the whole frame.

The offices performed by the skin are of far greater importance than most people imagine. It is not merely a covering or shield, to guard the organs of sensation from irritation or external injury—but it is itself a great sentient organ, receiving impressions from all that surrounds it, and communicating these, whether of a pleasurable, disagreeable or painful character, to the brain and other internal organs. It is likewise one of the great outlets by which the system is freed from a large amount of noxious and superfluous matter. When it suffers, nearly every part of the body sympathises with it, and

when its functions are impaired or suspended, some internal organ is quickly thrown into disease. If dirt be allowed to accumulate upon the surface, or if the vapour which is constantly issuing from its pores be allowed to condense and remain for any length of time in contact with it, the skin always suffers; and hence frequent ablution and frictions are indispensably necessary to preserve unimpaired the integrity of its functions.

All women of delicacy and good sense are sufficiently attentive to remove any outward soil or visible dirt from their persons; but, we assure them, something more than this is necessary to insure perfect cleanliness. Not only should the face, neck, hands and feet be washed daily, but those parts of the body also which are the most constantly covered by the clothing. Those who can not conveniently command a suitable bath, should with a sponge apply warm or tepid water to the whole of the trunk and limbs, and then immediately dry them by brisk friction with a coarse towel. The more they accustom themselves to this practice, the more comfortable and invigorated they will find themselves become. But, after all, the means best adapted to preserve the cleanliness of the surface, and promote the functions of the skin, is frequent bathing. And for ordinary use warm, or as it is more generally termed tepid bathing should be preferred.

The frequent use of the Warm Bath is not only

a powerful auxiliary to health, but it is, also, one of the greatest luxuries in which we can indulge. The heat of the water should never, however, exceed that of ninety-six degrees—nor should immersion in it be practised immediately after eating. By its removing thoroughly every foreign particle from the surface—by the gentle stimulus which it communicates over so large and important a sentient surface, promoting the functions of the skin, and encouraging the circulation of the blood through its numerous vessels, as well as by the soothing effects which it exerts over the whole nervous system, the warm bath conveys a vigour and activity to the system, a mild and equable temperature to every part, and a general feeling of well being. Sensations of languor and fatigue, and every slight degree of febrile excitement are by its use completely dissipated. In this manner the growth and formation of the body are promoted—the functions of the internal organs invigorated—the period of youth is prolonged, and the infirmities of age, if not prevented, are kept back to a later day. Warm bathing and frictions were the means proposed by some of the older physicians, for renewing the charms, pliancy and vigour of the constitution when lost from age, dissipation or long continued disease—and, to a certain extent, their opinions in this respect are not undeserving of notice.

Attention to the preservation of personal cleanliness requires not only the repeated ablu-

tion of the surface of the body, but frequent changes of clothing; especially of the linen, or whatever dress is worn in contact with the skin. This, by imbibing the perspiration and other excretions from the surface, quickly becomes fouled—and if worn in this state, not only impairs the functions of the skin, but may be the cause of disagreeable diseases of the exterior of the body, as well as of dangerous fevers and other affections, in which the most important of the internal organs are concerned.

Frequent changes of clothing—repeated washing of the face, neck, hands, arms and feet, which no female possessed of the least degree of delicacy would omit, are not, let it be recollected, sufficient to maintain that degree of personal cleanliness which is essential to the health and comfort of the system: the whole surface of the body, we repeat, must be subjected also to frequent ablutions. The importance of this scrupulous attention to preserve the entire skin from even the least degree of impurity can scarcely be conceived by such as have not experienced its advantages; but those who have, could not be induced by any light consideration to neglect it even for a single week.

CHAPTER V.

DRESS.

Importance of adapting the clothing to the state of the weather—Flimsy clothing in females destructive to health and life—Tight lacing—Corsets, manner in which they are injurious—Shoes and stockings—Flannel next the skin—Flannel drawers.

IN the regulation of female dress too much is sacrificed to fashion and appearance. The whims of a French or English mantua-maker, or the depraved taste of some reigning beauty, are of infinitely more weight in determining the nature of the clothing worn by the females even of this country, than all the arguments drawn from the character of our climate, and the attention which experience teaches us should be paid to the season of the year, the state of the weather and

the amount of exposure. Many of the diseases to which the delicate and youthful of the female sex are peculiarly liable, and by which so many of them are hurried into the grave in the springtime of their existence, may be traced to impropriety of dress:—either in preventing, by its undue tightness and its inconvenient form, the proper growth of the body, and the natural and free play of its various parts and organs, or to a want of caution in accommodating it to the temperature of the season, and to the various and rapid vicissitudes of the weather.

One cause of the alarming prevalence of consumption among the females in this country may, we suspect, be traced to the general adoption of a style of dress which is totally unadapted to guard the body from the influence of cold and of those sudden transitions from heat to cold so common, especially in the middle and northern states; and more especially under circumstances when these transitions of temperature are most liable to produce their baneful effects upon the system.

Strangers who visit the United States have frequently expressed their astonishment at the flimsy dresses of our fashionable females, so illy adapted to enable them to withstand the inclemency of the winter, and the frequent changes of temperature experienced during the spring and autumn.

We should perhaps be considered as exaggerating the imprudence of our females in neglecting

to protect their bodies by sufficient clothing—if regard were had only to the dress worn by them whilst within doors, and especially when engaged in their domestic duties. This, we admit, is sufficiently well adapted, so far at least as warmth is concerned, to all the purposes for which it is intended. But, in preparing for an evening ball or party, or even for a simple visit to a friend, it is too common for females, even when the temperature of the external air is that of mid-winter, to retire from a warm parlour to a cold dressing room; and there exchange a comfortable, warm dress, for one perhaps of thin silk or muslin (with wide sleeves of a still more flimsy material than the dress itself, which leave the arms almost entirely naked),—and their worsted or cotton stockings and thick shoes, for flimsy silk stockings and slippers of a scarcely more substantial material:—and, thus attired, with their neck and shoulders bare or merely covered with thin lace, they sally forth into the damp and chilly air of the night, and arrive at the place of their destination shivering with cold. After several hours have been passed in a hot, close, often crowded apartment, and perhaps when the body has been heated by the exercise of dancing, they again brave the cold and dampness of the external air, and on arriving at their home retire to their beds with cold feet and a shuddering frame. Who can be surprised that the consequences of such imprudent exposure are affections of the throat and lungs, attended

with cough and hoarseness, and too often terminating eventually in fatal consumptions? Motives of delicacy, as well as a proper regard for health, have been repeatedly urged in vain to enforce the strong necessity of relinquishing such destructive practices: the arguments of the moralist, and of the physician, have alike failed to induce conviction. And hundreds, who might have shone forth for years among the most estimable and lovely of the sex, have in early youth been dressed in the shroud, because, in an evil hour, they laid aside those parts of their apparel which their health, as well as comfort, rendered absolutely necessary.

But, injurious and fatal as are the effects resulting from too flimsy a dress, they are scarcely more so than those produced by tightly girding the chest and waist with that most absurd of all inventions, a Corset. The injury produced by the latter, it is true, shows itself more slowly, but not less certainly. Although years may pass before the pressure, to which the muscles and the important organs of the chest and abdomen are subjected, gives rise to serious disease and deformity; nevertheless, the daily amount of injury is considerable, and if the practice is persisted in, the time never fails to arrive when beauty, health and even life become its victims.

To enable our readers to understand the manner in which the undue compression exerted by a *tightly laced* corset produces injury, a few remarks will be necessary.

The motions of the body, as well as its erect position, depend upon the action of numerous masses of flesh, endowed with the property of active contraction : these are denominated muscles. The perfection with which the muscles perform their office, in either of the above respects, is always in proportion to their strength or tone, and their freedom from every artificial restraint. Now it is an invariable rule, that if constant pressure be made on any set of muscles, by means of a tight dress or a bandage of any kind, they will soon diminish in size, and consequently lose both their power of supporting the body in its natural position and their ability to produce the free and easy, in other words graceful movements of those parts to which they appertain. This is strongly exemplified, by the state of a limb that has been confined by the necessary dressings in consequence of a fracture, or by those impostors who, in many of the European cities, bandage firmly their legs and arms until they are diminished, frequently to one half their original size, for the purpose of exciting commiseration and extorting alms, or of avoiding military duty.

Tight lacing by means of corsets, and every portion or form of dress which compresses, in the least degree, any part of the trunk or limbs, and in that manner cramps the free motion of the muscles, in the same manner reduce their size and plumpness, and destroy their tone. So long as their use is continued, there is no means of

obviating the injury which results from them, and let it be recollected, that this injury is always greater, the earlier in life they are adopted. The muscles of the tightly girt female invariably lose their healthy tone and firmness, and the limbs and body present, instead of that roundness and full development of form so essential to personal beauty and so intimately connected with health and vigour, a shrivelled, bony, and emaciated appearance. These injurious effects result as well from the inactivity in which the muscles are kept by a tight dress, as from the free supply of blood, demanded for the support of every part of the body, being interrupted by the compression of the blood vessels and the inefficient exercise of the limbs.

The unfettered Indian, and even our country girls in the interior, are strangers to that deformity of figure and flaccidity of flesh, so common among the females of our cities: and this evidently arises from their muscles being allowed their proper play, and the body its regular growth, unimpeded, from the period of birth, by tight lacing or any unnatural form of dress. In the country girl we have health and vigour, and a free use of the limbs and muscles, because all are allowed to be exercised without restraint. She rests when she is weary, and in whatever posture she chooses, or in which she finds the most ease. When she has recruited her powers, she walks, runs or hops as her fancy may direct--bending, inclining or erecting her body

as she lists; and all the muscles are called into equal and harmonizing play; which is impossible in a body girt about with a tightly laced corset, or where the limbs are cramped by the form of the dress. In the case of the country miss, there will be undoubtedly much awkwardness in her attitudes and movements—but this arises from her want of education, and not from the absence of tight lacing. A graceful carriage and harmonious motion could be communicated much more certainly, were corsets banished as a part of female dress, than they can be so long as their use is persisted in.

We have not yet however completed the catalogue of evils produced by Corsets. Independently of the uneasiness resulting from their firm compression of the chest, the constrained position, which this uneasiness induces the female who wears them constantly to assume (indicated by the frequent shrugging and writhing of her shoulders, and her constant restlessness when in full dress), and which, of itself, often gives the back an ungraceful twist, and throws the shoulders out of their natural position; other serious and permanent inroads upon health and beauty take place. The pressure of the corset depriving, in a great measure, the muscles of the back, by which the upright position of the body is maintained, of their natural action, and the blood being prevented from circulating freely through their vessels, they become relaxed, and allow the body to bend ungracefully, either to

one side or forwards. In time, the curvature of the spine, which results, becomes permanent, and the individual is often deformed for life. But neither is this all.

The health and vigour of the system—the freshness and brilliancy of the complexion—the very activity, energy and cheerfulness of the mind depend, in a very great degree, upon the blood undergoing a perfect purification in the lungs. This is effected by its being brought into contact, in these organs, with a sufficient amount of pure atmospheric air: whatever impedes the free expansion of the chest in the act of breathing, and thus diminishes the amount of air inhaled into the lungs, prevents this purification of the blood from taking place. Now, the corset, by firmly compressing the chest and loins, does this to a very great extent—so much so, that in all females who have been in the habit of wearing it from their youth, the chest has absolutely a diminished capacity, and loses that finely arched form which constitutes the beauty of the female bust. By numerous experiments, it has been found, that females thus circumstanced take into the lungs a much less amount of air than those who have never worn a corset. The vigour of the whole system becomes, in consequence, prostrated; the skin assumes a sallow hue, and all the functions of life are performed imperfectly. The lungs and heart especially suffer, and, in many cases, become, sooner or later, the seat of incurable

disease—Consumption is indeed a very common effect of tight lacing.

The pressure of the corset on the stomach and liver is also highly prejudicial by impeding digestion and the free secretion of bile : in this way, independently of the injury inflicted upon the lungs, it causes discoloration of the skin, and a haggard and wrinkled countenance.

There is still another injury resulting from the corset, which has less often been adverted to : we allude to its effects in preventing the proper development of the breasts and especially of the nipples—in consequence of which, the female, when she becomes a mother, is subjected to great suffering, and is entirely incapacitated from performing one of the most pleasing and sacred of the maternal duties. In those who have never worn a corset, the want of a prominent nipple is scarcely ever observed, but, since its very general adoption, by nearly every young female, this deficiency is of very frequent occurrence.

We urge, therefore, upon all, the disuse of this ridiculous and pernicious portion of female dress—which, so far from adding any real grace or beauty to the form, is the cause of disease, suffering and deformity.

The Covering of the Feet of females, demands, equally with that of the other parts of the body, a degree of attention. The feet should be carefully guarded from cold and wet—this precaution is even more important for females than

men : *the suppression of an important function* of their systems, and, as a consequence, serious and long continued disease, are not unfrequently produced by its neglect. In the choice of stockings, therefore, regard should be had to the temperature of the season and the state of the weather. A thicker and warmer kind should always be preferred in winter and in wet weather, than in the warm dry weather of mid-summer. If fashion and pride demand the use of silk or thread stockings, an under pair of thick soft cotton or of worsted should also be worn ; it is better to sacrifice something in the appearance of the foot, than to jeopardize health and life.

The shoe, also, demands attention: while, in its materials and the thickness of the sole, it should be adapted to guard the feet from cold and wet, in its shape and size it should be such as neither to give uneasiness by unduly compressing the feet, nor to prevent the freedom of their motions in walking. Too small a shoe, whether in length or breadth, produces the utmost suffering to the feet, and often cripples for life those who persist in wearing them. Painful corns and callosities about the toes and joints, are always occasioned by them ; and the female who subjects herself to the torture of too small a shoe, in obedience to the dictates of fashion, not unfrequently becomes the martyr to her folly—suffering the most intense pain whenever she attempts to walk even a few squares,

and, in place of a free and graceful step, acquiring an extremely displeasing and hobbling gait, or being deprived altogether of the use of her feet in walking or dancing.

In conclusion, we may remark, that those parts of the body which are most liable to suffer from the influence of cold, and hence such as require to be defended with the greatest care by appropriate clothing, are the whole of the chest, the upper part of the arms and the shoulders, the abdomen and the feet. Our opinions may be set down as old fashioned and absurd, when we recommend soft flannel as the most appropriate dress to be worn by females in contact with the skin, during those seasons of the year, when the cold is intense, and the vicissitudes in the temperature of the atmosphere are frequent and sudden: We assure our readers, however, that by adopting our recommendation, they will be gainers in health and in comfort, and that they will prolong the freshness and vigour of their youth to a much later period than is now the case.

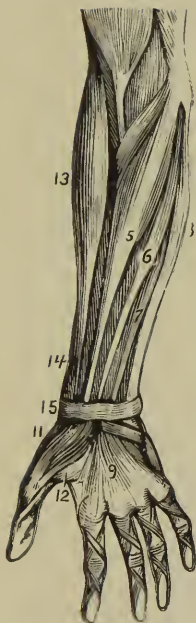
Soft Flannel Drawers, in particular, should be considered an indispensable article of female attire during cold and wet weather.

CHAPTER VI.

FOOD AND DRINK.

Connection between the health of the system and that of the stomach—Temperance—Healthy appetite—Artificial appetite—Consequences of excess—Diet proper for females—Effects of too spare a diet, and of fasting—Tea and coffee—Breakfast—Dinner—Suppers—Drinks.

GLUTTONY is so disgusting a trait in a female—it is so inconsistent with that delicacy which constitutes one of her most powerful charms, so inimical to her beauty whether of form or of feature, and so destructive to her health, that we can scarcely suppose it necessary to warn our fair readers against its indulgence. There are, however, errors in diet, which, without subjecting the female who indulges in



FRONT VIEW OF THE MUSCLES OF
THE FORE-ARM.

them to the charge of gluttony, are scarcely less injurious.

The health of the whole system, the regular and perfect performance by each organ of its appropriate functions, depend intimately upon the health of the stomach: when the latter suffers all suffer. To preserve the stomach in health nearly all that is requisite, in addition to daily exercise in the open air, is a temperate use of wholesome food. Temperance in eating, let it, however, be recollected, is quite a different thing from abstinence, or a fastidious rejection of any one of the alimentary substances with which our tables are ordinarily supplied, provided these be plainly cooked.

A sufficient amount of nourishment is absolutely necessary to afford materials for the growth of the body, and to supply the waste which is continually taking place in every part of it. Too little or too large an amount of food, even when in its quality and mode of preparation it is perfectly unexceptionable, is alike injurious to health.

To the accusation formerly brought against the fair sex, of starving themselves into a fashionable delicacy of complexion and slimness of shape, they are no longer, we believe, liable, at least to the same extent. The errors of diet committed by the females of the present day are more generally the use of unwholesome food, or that improperly cooked, and the partaking of it at unseasonable hours.

With an appetite produced exclusively by habits of early rising, active exercise and general temperance, almost any simple aliment which the air, the earth, or ocean affords may be eaten ; and to as great an extent as the cravings of the appetite demand. The moment, however, these are satisfied, every additional morsel of food that is taken is productive of injury. 'Pleasure dwells no longer upon the appetite than the necessities of nature, which are quickly and easily provided for, are satisfied, and then all that follows is a load and oppression. Every morsel to a satisfied hunger is only a new labour to a tired digestion; every draught to him that has quenched his thirst is but a further quenching of nature, and a provision for disease—a drowning of the quickness and activity of the spirits.'

To render our food wholesome it should be bland, nutritious and easy of digestion. The artificial and vitiated appetite which is often met with in females who spend their days in an alternation of listless indolence and fashionable dissipation, and which, produced solely by provocatives, and only satisfied by food disguised and rendered powerfully stimulant by the pernicious arts of modern cookery, is the one which leads to excesses most prejudicial to health. By its solicitations the enervated stomach is loaded with a mass of indigestible food, the inevitable consequences of which are pains and uneasiness, headach, lassitude and a

general feeling of feverishness and debility which continues for many hours or even days.

Independently of its baneful effects upon health, there is not a greater enemy to female beauty than over feeding, as well as all the other errors in diet. The injury inflicted by too much, or unwholesome food upon the stomach (between which and the other parts of the body there exists the closest sympathy), and the impure state of the blood, produced by the imperfect digestion and concoction of the aliment, causes the skin to become coarse, harsh, and often to be covered with painful and unseemly eruptions; and the complexion to fade, or to assume a sallow hue: the roundness and plumpness of the limbs disappear, in consequence of the general flaccidity of the flesh; the teeth soon decay; the eyes lose their brilliancy, and every trace of beauty is finally destroyed.

In consequence of their sedentary habits, females ordinarily require a lighter and more spare diet, than men who spend most of their time in the open air, and in laborious occupations. They should be careful, however, not to confine themselves to too spare a diet, or one possessing too little nourishment, nor should they allow too long an interval to elapse between meals. The most prejudicial effects are produced by insufficient food, or by long fasting. A sense of uneasiness and of sinking is experienced in the stomach, and in delicate habits even giddiness and faintness: in time, the fluids

deteriorate from the want of a proper supply of new materials; the glow of health is replaced by a pallid, sickly hue; the skin loses its smoothness and elasticity; the muscles, their strength, and all the external parts of the body diminish rapidly in bulk.

Females are accused, whether correctly or not we pretend not to say, of peculiar fondness for very many of the more indigestible and pernicious articles of food; hot bread or toast, at breakfast—pastry and rich gravies and sauces, at dinner—hot muffins saturated with butter at tea, and creams and cakes and jellies in the evening. Should this be so, we warn them, if they have any regard for their health and comfort—if they desire to preserve unfaded their personal charms; to give up their dainties, and restrict themselves to plain and wholesome food.

Tea and coffee are, we believe, more frequently drunk to excess by ladies, than by the gentlemen. We would not object to either, when taken in moderation and not too strong—coffee, however, when drunk late in the evening, is very apt to disorder the stomach during the night and occasion wakefulness or disturbed sleep. It is not our wish to see the use of either tea or coffee entirely relinquished, but kept within bounds. Their excessive use by females who pass an inactive, sedentary life—stirring but little abroad, and whose only exercise in the open air is an occasional languid walk of a few squares, with their bodies tightly laced, and

their feet cramped into the smallest possible slippers, is productive of much greater injury to health than is generally supposed.

The first meal of the day, or breakfast, should consist of something more solid and nourishing than a cup of tea or coffee, and a few thin slices of bread. The female who is accustomed to a life of activity, and is withal an early riser, will enter the breakfast room with a keenness of appetite that will not find a soft boiled egg or two, a slice of cold meat, or even a beefsteak, by any means an unpleasant addition to the morning meal. Her health too will experience decided benefit from a moderate use of these substantial viands. After such a breakfast she will be enabled to partake during the forenoon of active exercise, without requiring to indulge in food until the regular dinner hour arrives. Should a craving for food however be experienced in the course of the morning, we protest against her satisfying it with a slice of pound cake and a glass of wine or cordial; but let her take a biscuit, a slice of bread and a draught of milk, a simple custard, or something equally light. We have no objection, towards the middle of the day, to allow her a good dinner; provided the dishes of which it is composed be simple and plainly cooked, and she indulge in them no further than the natural calls of her appetite demand. For supper, she may take, early in the evening, a dish or two of weak tea, with the old fashioned accompaniment of a slice of good bread and

butter : if the breakfast and dinner have been such as they should be, and eaten with a healthful appetite, nothing more will be required until the next morning.

The practice of eating heavy suppers, late in the evening or just before retiring to bed, is exceedingly pernicious. Disturbed sleep and painful dreams—the nightmare, and even more serious disorders, are the ordinary effects of this practice. The energies of the stomach, in common with those of all the other organs of the body, are diminished as the season for repose draws near, and cannot tolerate the stimulus and distention caused by the introduction of heavy and indigestible food at that period. The suffering of the stomach is quickly transmitted to the brain and heart, and a disturbed state of these organs is the consequence.

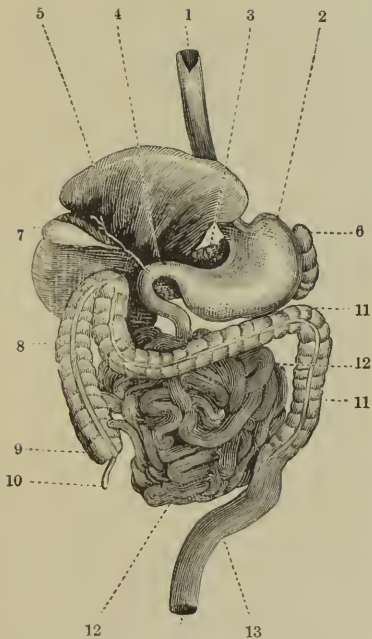
In regard to drinks, there is only one wholesome beverage ; and that is water. None other presents the same requisites for quenching the thirst, diluting the food, and supplying the necessary fluidity to the blood ; none other can be habitually used without the health being destroyed and happiness jeopardized. In the middle and better classes of society in this country, the charges of intemperance, we are proud to say, can very rarely be urged against a female. A few may occasionally indulge in a glass of wine in company ; though we believe the chief of their dissipation, in regard to drink, is in sipping occasionally, during a morning call or

at an evening party, a glass of cordial. Even this, however, is too much, and ought to be relinquished. The health, the personal attractions, the respectability, nay, the very virtue of females is best secured by their entire abandonment of every kind and quantity of intoxicating drink. In the early ages of the Roman commonwealth, women were forbid even to taste wine; and their husbands and near relatives were permitted to punish them even with death, if they were detected indulging in it. We trust the time is near at hand, when the good sense and moral courage of American females, and their respect for the happiness of all they hold most dear, will in the same manner interdict to them the use of every drink save water. Let but the females of our land consider how much they may benefit themselves, their children, and society at large, by thus restraining; and the interdict will not require, to insure its strict and permanent observance, the disgraceful penalty of stripes and death denounced upon the violators of the Roman law.

CHAPTER VII.

DYSPEPSIA.

Its connection with the subject of diet—Females peculiarly liable to it—Arises from morbid impressions made directly upon the stomach, or from the latter sympathizing with the disordered condition of other organs—Causes which act directly on the stomach—Errors in diet—Improper food—Improper drinks—Causes which indirectly affect the stomach—Deficiency of exercise—Impure and confined air—Affections of the mind—Insufficient sleep—Cold—Dyspepsia most commonly met with in cities—History of the disease—Great variety of its symptoms—These differ in different cases, and in the different periods of the disease—General description—Preventive treatment of dyspepsia—Mode of cure—Caution against the abuse of purgatives.



DIGESTIVE APPARATUS IN MAN.

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| 1. Gullet. | 8. Large intestine. |
| 2. Stomach. | 9. Cæcum. |
| 3. Pancreas. | 10. Appendix of the cæcum. |
| 4. Pylorus. | 11. Colon. |
| 5. Liver. | 12. Small intestine. |
| 6. Spleen. | 13. Rectum. |
| 7. Gall-bladder. | |

INTIMATELY connected with the subject of diet is that of Dyspepsia, whether we consider it in reference to its causes, or its mode of cure. It is on this account, as well as from its being one of those diseases to which females are peculiarly liable—and which is the most frequent cause of the depraved and capricious appetite, the hysterical and nervous sensations, the feeling of languor and depression, the intense headach and disturbed sleep, from which so many of those in the middle and more opulent ranks of society are almost continually sufferers,—that we have judged it proper to say a few words in relation to it in this place. It is by errors in diet and regimen, that dyspepsia is ordinarily produced; and it is by a judicious plan of diet and regimen, that it is most certainly to be prevented, or when present most effectually and readily cured.

Dyspepsia consists, strictly speaking, in a disordered state of the stomach and other digestive organs, in consequence of which the food taken by the individual does not undergo properly those changes which are necessary to adapt it for supplying materials for the growth and nutrition of the body: on the contrary, it remains in the stomach undigested, or undergoes changes of a purely chemical nature. Hence, independent of the irritation which its presence in the stomach and bowels occasions to those organs, and through them to the rest of the system, there ensue a vitiation of the blood and defective nutrition of the whole body, in consequence of a

sufficient supply of healthy chyle to the blood being prevented.

The healthy actions of the stomach are not only influenced by the food which is taken into the latter and thus acts directly upon its coats ; but, in consequence of the intimate sympathy which exists between the stomach, and the skin, the brain, the lungs and nearly all the other organs of the body, by whatever causes the functions of these latter are impeded or disturbed, a similar morbid condition of the functions of the former is indirectly produced. In consequence, also, of this almost universal sympathy between the stomach and the rest of the system, when disease occurs in the first it is very quickly extended to the other organs—when, therefore, the stomach suffers, it may be truly said that all suffer. From this statement, the cause of the great diversity of symptoms by which dyspepsia is accompanied in its different stages, and in different individuals, will be readily understood, as well as the action of the multiplicity of causes by which it is produced.

The causes of dyspepsia are, first, those which act immediately upon the stomach. The first and most important of these are errors in diet. Too much food even of a wholesome quality injures the stomach by causing its over distension, and in that manner preventing the free performance of its functions; eating also, too frequently, interferes with perfect digestion, and causes more or less irritation to the digestive

organs—food, therefore, should never be taken until sufficient time has been allowed for the necessary changes to be effected in that which is already in the stomach. In the same manner, partaking at one meal of a great variety of dishes impedes digestion and disorders the stomach.

Eating too fast, by not allowing sufficient time for the proper mastication of the food, renders it less digestible, and in this manner causes it to remain too long in the stomach and to irritate unnecessarily that organ. Food, eaten a short time previously to retiring to bed at night, is likewise a cause of injury to digestion. As evening approaches, the stomach, as well as all the other organs of the body, loses a portion of its energy and activity; in consequence of which its functions are less perfectly performed, and, if deprived of that rest which is necessary to restore its vigour, falls readily into disease.

Very rich and indigestible food, or that which is too highly seasoned, very soon causes disease of the stomach, and impairs its digestive powers. The uneasy sensations which almost immediately follow the eating of such kinds of food, ought to be a sufficient warning to every one against their use. Certain processes of cookery, as frying, not only destroy the nutritious properties of the food, but cause it to act as a most powerful irritant upon the coats of the stomach. A certain bulk of food is necessary to insure its perfect digestion—hence minute portions of aliment, taken at short intervals, so far from sup-

porting properly the strength of the system, are never properly digested, but oppress the stomach and undergo a chemical change which causes them to act injuriously upon the digestive organs. It is perhaps from this cause also that the stomach suffers when food is taken of too concentrated a nature, as in the form of rich jellies or soups, refined sugar, and the like highly nutritive articles. Quickly clogging the appetite, aliment under this form can be taken only in small quantities, upon which the stomach is unable properly to act.

In regard to Drinks, the habitual use of any other than water invariably destroys the tone of the stomach, injures its digestive powers and causes in it disease of a more or less violent character. This will result from a much smaller quantity of any of the vinous or alcoholic liquors in common use, than is generally imagined. When indulgence in them falls far below the extent of inducing intoxication, or even undue exhilaration of the mind, the digestive organs will receive an injurious impression, from which disease may be extended widely throughout the system. In the same manner, drinking immoderate quantities of strong tea or coffee is often the cause of dyspeptic symptoms when least suspected.

The causes productive of dyspepsia which act indirectly on the stomach are:

First. Deficiency of active exercise, particularly when combined with an habitually seden-

tary or constrained position of the body. Under this head may be arranged an indolent and inactive mode of life; occupations carried on in a sitting or stooping position, and continued for too long a period without interruption; lying too long in bed in the morning; and those articles of dress, as the corset for example, which press upon the stomach or impede the free motion of certain parts of the body. When speaking of exercise, we pointed out its absolute necessity for the promotion and preservation of the health, vigour and activity of the system. Not only does a deficiency of it relax and enfeeble the muscles themselves, but the functions of the brain, the stomach, and the heart suffer in a similar manner. They who are deprived of a sufficiency of active exercise soon lose their appetite; the food they take causes oppression, a feeling of heat and burning at the stomach, with flatulence, griping and other unpleasant sensations; to which are sooner or later added all the other symptoms of dyspepsia. Errors in diet of the most trifling kind are much more apt to prove injurious to persons thus situated than to the active and laborious.

Secondly. Dyspepsia may be caused by impure and confined air. The indolent and sedentary, by their confinement within doors, equally suffer from the effects of this, as from the want of sufficient exercise; and hence they of all persons are the most liable to dyspepsia.

Thirdly. Various passions and affections of the

mind are fruitful causes of dyspepsia. The health of the stomach is materially affected by the state of the mind. Thus, while cheerfulness, contentment, and the regular and moderate exercise of the intellectual faculties, increase the tone of the stomach, and facilitate the digestion of our food: excessive grief, jealousy and all the depressing emotions; a state of mental inquietude, or over anxiety about worldly affairs, and intense and protracted occupations of the mind in literary or scientific labours, weaken the digestive functions; and, when joined to a want of due bodily exercise and an impure and confined air, never fail to induce severe and permanent disease of the stomach as well as of various other organs. So immediately is the influence of moral causes experienced by the digestive organs, that the communication of unpleasant intelligence during a meal will entirely destroy the appetite, however keen before; and so far prevent the action of the stomach upon the food already taken as to allow the latter to run almost immediately into fermentation.

Fourthly. The want of sufficient sleep is another source of injury to the stomach by which dyspepsia is frequently produced. The unnatural excitement of the system kept up at a period when the exhausted state of all the organs calls so loudly for repose, cannot fail to impair their functions and excite disease. No organ is more liable to suffer from this cause than the stomach.

Fifthly. The influence of cold and a variable state of the atmosphere, when it is sufficient to suspend and impede the functions of the skin, in consequence of the close sympathy existing between the latter and the stomach, is another fruitful source of dyspeptic symptoms. When the energies of the system have been already reduced by the causes already enumerated, a very slight degree of cold applied to the feet, or to any part of the surface habitually covered by the clothes, will cause the stomach almost immediately to suffer—so that the digestion of the food is suspended or but imperfectly effected.

On casting our eye over the foregoing list of the general causes productive of dyspepsia, it must be evident, that the whole of them are experienced to the greatest extent by the inhabitants of large and wealthy cities, and more especially by such as abandon themselves to a life of luxury and indolence, or whose days and nights are absorbed by the pursuit of wealth or fame. The effects of sedentary habits, defect of exercise, impure air, late hours, and mental perturbation upon the inhabitants of all large cities, added to the excess of food and high-seasoned dishes, and the stimulating drinks, indulged in more or less by the majority of persons in every class of society, are fully evinced by the sallow complexions, puny or capricious appetites, and irregularity of bowels which all exhibit. In fact, the host of moral and physical causes, that are always in operation in civic life, keep the

powers of the digestive organs invariably below the standard of health; while the quantity and quality of the usual food and drinks made use of, are calculated of themselves to impair these organs, even if they were in a state of the most perfect integrity. The frequency of dyspepsia among the inhabitants of cities need therefore excite no surprise.

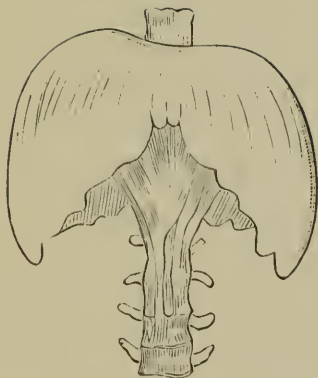
In giving a history of the general features of dyspepsia, we shall be as brief as we possibly can, with a due regard to clearness and perspicuity. Were we to enumerate all the symptoms to which it gives rise in different individuals, and in its different stages, we should be obliged to enumerate nearly all the morbid phenomena the human body is capable of exhibiting: for as disease is gradually extended by sympathy from the stomach to the liver, bowels, skin, brain, and lungs, the symptoms produced by a derangement of the functions of these various organs become superadded to those dependent strictly upon a disordered condition of the digestive organs. Thus in one case dyspepsia is marked simply by want of or depraved appetite, pain or uneasiness at the stomach especially after eating, flatulence, sour eructations, coated tongue, and irregular bowels; in another we have a sallow skin, coldness of the extremities, a sense of chilliness alternating with flushes of heat, emaciation, violent pains in the stomach and bowels, and frequent vomiting; in a third, great irritability of temper, despondency, or the

most perfect hypochondriasm almost amounting to insanity; in a fourth all the symptoms of hysteria; in a fifth, gravel and other affections of the kidneys; in a sixth, paroxysms simulating asthma; and in a seventh, the phenomena of pulmonary consumption:—or we may have more or less of all these symptoms in a single case. Dyspepsia has, therefore, very properly been styled a *protean disease*.

Dyspepsia usually commences in a very gradual and insidious manner. It may exist for a considerable time, attended with only slight symptoms of uneasiness referable to the stomach, a gradual loss of all relish for the ordinary articles of food, and some variableness of temper or irritability of mind. But, finally, the symptoms of stomachic disease become more intense, the energies of the body and mind sink, and a disordered state of various organs is very evident.

The first symptoms are, in general, deficiency or loss of appetite, heartburn, palpitation of the heart, a disagreeable taste in the mouth, especially on first waking, acid or acrid eructations, a sense of fulness or distension of the stomach continuing for many hours after eating, frequent belching, offensive breath, costiveness or an irregular state of the bowels, giddiness, and headach, sometimes referred to the fore and sometimes to the back part of the head, an uncomfortable sensation of chilliness, or crawling over the surface after eating, and heat and dryness

of the skin towards evening. From the very first, these symptoms are attended in a greater or less degree, by lowness of spirits, and irritability of temper, or a peculiar languor and lassitude, that disincline the individual from the least exertion. These are followed by want of rest or disordered sleep, and the sufferer awakes in the morning with a sense of weariness and exhaustion, instead of feeling refreshed. The least exertion occasions fatigue, and when the weather is temperate deluges the patient with perspiration. Dizziness amounting almost to vertigo, and ringing in the ears, are frequently experienced. The mouth is sometimes dry and pasty; at other times there is an increased secretion of thin limpid saliva; or, the mouth is constantly filled with a thick ropy fluid. Dyspeptics are in general disinclined to mix in company; or they rush into a round of dissipation to get rid of their uneasy feelings. They become suspicious of every one, and their usual energy of mind and firmness of purpose are exchanged for capriciousness, timidity and irresolution. The hands are alternately hot and cold; in the former state they are dry, in the latter more usually damp. Paroxysms of intense pain are occasionally experienced in the stomach, which terminate by the throwing up, often without effort, of a quantity of glairy, limpid fluid, some times insipid or sweet, at others peculiarly acid. The limbs ache as though they had been bruised, and the flesh on the surface of the body is even sore to the touch,



ANTERIOR VIEW OF THE DIAPHRAGM IN
A STATE OF REPOSE.

and any change of position is attended with inconvenience. Every alteration of the weather is felt as a serious evil ; if it becomes a degree or two colder, the patient creeps near the fire—if its temperature is only slightly raised, oppressive heat is complained of. The bowels become more and more bound—if purgatives are resorted to, they must be gradually increased in strength, and, when they do operate, their action is too powerful, and its effects are not easily checked—when they are, however, obstinate costiveness succeeds. The depression of spirits increases as the disease advances; the patient falls into frequent paroxysms of ill humour, or sheds tears profusely from the slightest causes, and often without any apparent cause. Dyspeptics invariably magnify all the symptoms under which they labour—and fancy a thousand which are not present. They consider a speedy death inevitable, gradually lose flesh, and are troubled with wandering pains in their bowels and side; a tenderness at the pit of the stomach is experienced on pressure; the abdomen is often permanently distended and tense; a discharge of the food in the same condition in which it was swallowed, often takes place by the mouth. The breathing is occasionally hurried or oppressed; a short, dry and distressing cough, and a scanty and difficult, or profuse, expectoration ensue. In dyspeptic patients the urinary secretion is always more or less affected. The urine is sometimes discharged in immoderate quantities

and perfectly limpid, at other times it is deficient in quantity, thick, and of a white, red or yellow colour, and its passage is preceded by pains shooting downwards from the loins, and accompanied and succeeded by a distressing sense of burning. With this brief sketch of the more ordinary features of Dyspepsia, our readers must be satisfied—they will learn sufficient from it to detect the disease during its earlier stages, as well as to form a tolerable conception of the symptoms which mark its protracted and more aggravated forms.

We come now to an all important question; namely, how is Dyspepsia, with all its attendant evils, to be removed? It is certainly unnecessary to say any thing in regard to the proper preventive means; a reference to the list of causes productive of Dyspepsia, will at once point out a well regulated diet and regimen as the means which are alone to be depended on, and these we have considered at sufficient length in the Chapters of this work, which treat of Diet, Exercise, Clothing, Cleanliness, Sleep and the Passions. The treatment we propose to lay down on the present occasion will not consist in the administration of a variety of medicines internally, which, so far from restoring the stomach to its accustomed health and vigour, very generally add to the mischief which already exists, and extend it over a larger portion of the body. A vigilant attention to diet, air, exercise and clothing, regulated in reference to

the particular condition of the stomach and other organs ; together with all those means calculated to insure mental tranquillity—in other words a rational system of *training for health*, will be found more decidedly beneficial in restoring to the digestive organs their healthful functions, than all the drugs of the apothecary or the various specifics which have from time to time been extolled as the only certain stomachics.

In our next Chapter will be detailed the system of training proper to be adopted for the cure of dyspeptics. Before closing this, however, we must warn such of our readers as are unfortunately the victims of stomachic disease, against the abuse of purgatives, to the use of which they are so frequently prompted by the state of their bowels, and by the temporary ease experienced after a full evacuation from them. Though purgatives may sometimes relieve unpleasant sensations, they do not in general produce even this effect: while all active purgatives, or even the mildest laxative, frequently repeated, will increase the disorder ; the bowels are kept by their action constantly in a state of irritation, while at the same time, when their use is once commenced, to obtain the desired effect they must be repeated daily in continually increasing doses. Constipation is capable of being much more safely and effectually remedied by diet than by medicine.

CHAPTER VIII.

TRAINING FOR HEALTH

In what it consists—Of food—Of drinks—Of exercises passive and active—Of repose—Proper period for sleep—Means for promoting the healthy functions of the skin—Warm bath—Frictions—Sponging—Proper clothing—Means of remedying cold feet—Exposure to pure and free air—Necessity of avoiding cold and damp—Injury from nightly assemblies—Proper regulation of the passions—To remove acidity of stomach—Remedies for constipation—To arrest diarrhœa—Shampooing—Mr Halsted's method—Recapitulation.

THE plan of Training for the restoration of Health consists in a proper choice of food cooked and prepared in such a manner as to deprive it of any irritating property, and to facilitate its digestion; in the observance of the strictest rules

in regard to the quantity of aliment taken into the stomach, and the period at which it is partaken; in the entire relinquishment of all fermented and distilled liquors, and of all fluids possessed of a stimulating or narcotic principle; in a proper regulation of exercise in relation to its quantity, nature, and the periods at which it is resorted to; in a proper regulation of the season for repose, whether for a cessation from active exertion or for sleep; in a proper attention to the condition and functions of the skin, including clothing, bathing and frictions; in sufficient exposure to a free and pure atmosphere; in the proper regulation of the passions; and in the use of such other means as tend to promote the health and vigour of the stomach, skin, and other organs.

First. In regard to food. The chief object to be kept in view in regulating the diet in dyspepsia is, that it should consist of such articles, as shall tend as little as possible to produce either undue distension or irritation of the coats of the stomach. The stomach may be morbidly distended independent of the qualities of the food itself:—First, by partaking of too much food at a time, or eating too frequently. Second, by eating with too great rapidity, the food being swallowed without proper mastication and a due admixture of the saliva, both of which are essential to its quick and perfect digestion. To eat moderately and slowly of wholesome food, therefore, is a highly important rule

at all times, but especially when the stomach is suffering from dyspepsia. The dyspeptic should always attend to the first feelings of satiety. It is a strange circumstance that food of any kind eaten without an appetite, or taken after the appetite has been satisfied, is rarely well digested, but oppresses and irritates the stomach. We warn the patient, however, against the error of partaking of food in small quantities and at short intervals: the stomach is always more or less injured by this mode of feeding—Let the dyspeptic eat as much food as may be prudent at a single meal, and allow sufficient time to elapse for the digestion of what has been taken before she partakes of more. Thirdly, morbid distension and irritation of the stomach may be produced by the food being of such a nature, that the stomach is unable to produce in it the proper changes, in consequence of which it is retained for a long period within that organ, becomes rancid, or runs quickly into fermentation. The dyspeptic, therefore, should feed upon aliment which is at once nutritive and easy of digestion. Tough, acescent, oily, and fibrous food, eaten with a large proportion of fluid, composes the diet most difficult of digestion.

In the first stages of dyspepsia, a diet, composed principally of animal food and stale bread, is the best. The flesh of full grown animals should be preferred to that of young animals. Mutton and beef, and most kinds of game are easy of digestion, and therefore most proper for

delicate stomachs. Very fat meat of all kinds, fish, pork, geese and ducks, are to be avoided. Eggs, when soft-boiled, and eaten in moderation with bread, are easily digested, and may form part of the diet of a dyspeptic. Oysters, also, taken raw or simply warmed through, are at once a wholesome and nutritive food easily managed by the stomach.

Few things are more indigestible and oppressive to the stomach than fresh bread, cakes of all kinds, pastry, the crust of apple dumplings, boiled puddings and the like. These should form no part of the diet of the dyspeptic. Even stale bread, if eaten alone, is somewhat oppressive. Biscuits and toast will sometimes agree better with dyspeptics than bread.

Bran bread is an admirable article when the bowels are constipated, from its laxative properties; it is also much less liable to turn sour upon the stomach than that composed entirely of flour. Rye bread should never be eaten by those affected with this disease.

The bread may be taken with a moderate quantity of fresh butter, when this is found to agree perfectly well with the individual, but if the least uneasiness is experienced from its use, it should be at once abandoned. Stale butter, or that which has been melted, is decidedly injurious. The dyspeptic should carefully avoid all strong jellies, food carefully mashed into a pulp, made gravies, and rich soups of every kind, all of which are indigestible and irritating to the

stomach. The best mode of cooking the food of the dyspeptic is unquestionably simple roasting, broiling or boiling—it should not be either under or over done. All attempts to increase the flavour of the food by mixture, spices, or other condiments, or to concentrate its nutritive properties—all essences, extracts, and complicated stews, are injurious to the stomach.

All tough and hard animal food, particularly if salted, dried or smoked, is difficult of digestion, and unwholesome. The fat of all meat is extremely oppressive to the stomach, and should as a general rule be abstained from by those labouring under dyspepsia. Fat is rendered still more pernicious and indigestible when acted upon by heat, particularly in the processes of frying and baking. Cheese is another article, the use of which must be prohibited in dyspepsia under every circumstance. Milk will be found in general, particularly when fresh, to agree with the stomach, and to be readily digested:—occasionally persons will be found who cannot tolerate it however, even in health; to such its use would of course be improper. It will be found very frequently that fresh cream will sit more easily upon the stomach of the dyspeptic than milk.

All fresh vegetables, on account of their tendency to fermentation, are, generally speaking, improper in dyspepsia. Peas, beans, cabbage and waxy potatoes are the most unwholesome; mealy potatoes, turnips, broccoli and spinage

the least so. Fruits are also very generally improper and injurious, particularly when of a very firm texture, watery, mucilaginous or acid. The only species of fruit of which the dyspeptic can make use, with any degree of propriety, are peaches and strawberries when they are in season, and even these will often be found to disagree with the stomach. Pickles and preserves of every kind must be given up by those affected with dyspepsia. To some dyspeptics, the least quantity of sugar is highly oppressive; by others it may be eaten in moderation with perfect impunity.

Much seasoning is pernicious, both on account of the irritation of the stomach to which it gives rise, and by inducing an artificial appetite by which the patient is induced to eat more than the stomach can properly digest. The very defect and caprice of appetite which attend upon a disordered state of the digestive organs, will induce the dyspeptic to commit excess in regard to spices; on this account it would be better to abandon them all with the exception of salt. Not only should the food be well chosen and properly prepared, but it should likewise be simple—variety of food at the same meal always endangers over-distension of the stomach, and causes imperfect digestion. The dyspeptic should always confine herself to a single dish at dinner, and rise from the table before the desert is served, nearly every article of which this latter is generally composed, being to her forbidden fruit.

Second. In regard to drinks. Water is evidently the fluid destined by nature to be the diluent of our food, and to it should the dyspeptic be strictly confined. Even water, however, should be taken in moderation, especially at meal time. An excess of fluid in the stomach over-distends it for a time, and impedes the proper digestion of the food. In dyspepsia the irritation which exists in the stomach and the altered state of the fluids secreted in the mouth often cause considerable thirst, which, if indulged incautiously, will cause too great a quantity of water to be taken in the stomach. The dyspeptic should not, therefore, yield to every slight sensation of thirst ; and, when drink is necessary, should take it in moderate quantities at a time, swallowing it slowly. It is unnecessary for us to say that all fermented and distilled liquors are injurious to the stomach of the dyspeptic. Those which contain a large amount of alcohol produce injurious effects by directly irritating the coats of the stomach, and when taken to the extent of intoxication indirectly exhaust the vital energy. Fermented liquors of a less stimulating character quickly turn sour upon the stomach, and thus become a source of irritation ; and, when they contain a large amount of free carbonic acid gas, they unduly distend it. On this latter account the artificial mineral waters of the shops, spruce beer, bottled cider, mead and beverage, are improper in dyspepsia—All acid drinks, as lemonade,

punch, orgeat, and the like, increase the sufferings of the dyspeptic, and should therefore be strictly refrained from.

Unfortunately the sense of sinking and of faintness experienced by the dyspeptic about the region of the stomach—together with the languor, depression of spirits, and other uneasy feelings which accompany this disease, are so many causes prompting to the use of stimulating drinks: hence it requires some degree of resolution to abstain entirely from them—particularly on the part of those who have heretofore been accustomed to their use; but it may be safely asserted that so long as they are indulged in a cure cannot be effected: they, on the contrary, invariably increase all the most unpleasant of the symptoms, and hurry on the disease to a rapid crisis. Tea and coffee, also, when taken very strong, and in immoderate quantities, are injurious to the dyspeptic. In moderation, however, and when weak, they seldom disagree with those accustomed to their use. A warm dish of coffee in particular without sugar or cream, taken a few hours after dinner, is often found to facilitate digestion.

Good chocolate, deprived by cooling of its fatty portion, and then reheated, will agree with many dyspeptics—others, however, it heats and oppresses. The period and repetition of meals must be directed by the calls of appetite, and in some measure by previous habits. The stomach, particularly when weak, should never be allowed

to experience for any time the sensation of hunger. In general three meals each day will be found sufficient; but some dyspeptics are troubled with a sense of sinking at the stomach when a considerable interval elapses between their meals, and will require four. The last meal, which should never consist of animal food, ought always to be taken an hour or two before bed time. In the intervals of the meals the dyspeptic should abstain entirely from food of every kind.

Third. Of Exercise. The exercise of both body and mind demands particular attention in the treatment of dyspepsia. Whatever attention may be paid to diet, unless the body is exercised daily and to a sufficient extent, and the mind receives a proper and pleasurable excitement, but little progress will be made towards a cure. The patient may often be so much reduced in strength or so disinclined to active exertion, that riding in a carriage, or some other species of passive exercise, is all that she can at first be induced to make use of, or can bear without fatigue. The best and gentlest kind of passive exercise is sailing; next to sailing, riding in a gig or carriage, particularly the former, when the patient is capable herself of driving. As substitutes for riding in a carriage, but far inferior to it in their effects, spring chairs, swings and the like are sometimes resorted to. None of the above species of exercise is equal, however, to riding on horseback for several hours

daily, when the patient is sufficiently strong to undertake it.

Walking, as soon as it can be borne without too much fatigue, is of all exercises the most natural; and the best in reference to its effects in dyspepsia. It frees all the organs from any degree of compression or restraint, and exercises all the muscles equally. A walk of a few miles in the morning, and repeated when the patient is sufficiently strong for a shorter distance in the evening, should be urged upon the dyspeptic daily, whenever the weather permits, as essential to the complete removal of the malady under which she labours. Those exercises in the open air, in which bodily exercise is combined with a moderate and pleasurable excitement of the mind, particularly various games and gardening, are well adapted to the dyspeptic. But, in all the exercises which are resorted to, care must be taken, that while they are regularly persevered in, they be not carried to the extent of producing exhaustion or undue fatigue. Neither should they be undertaken immediately after a meal, otherwise, in place of benefiting, they will disturb digestion and increase ultimately the irritation of the stomach.

Proper exercise of the mind is equally important to the dyspeptic as that of the body. The languid, listless, and desponding state of the mind, induced by a disordered condition of the digestive organs, is more or less counteracted, by a due degree of bodily exercise; but the occu-

pation of the mind on agreeable and cheerful subjects is all-important. The greatest care must, however, be taken that the mind be not fatigued or too closely occupied. All deep, intense study, or close thought is injurious, by robbing the stomach of nervous energy, and concentrating it upon the brain. When the debility of the dyspeptic is considerable, her mind should be exercised by amusement alone—Even those amusements which greatly interest the feelings, or require any considerable effort of the mind, are hurtful. When, however, the patient has somewhat recovered her strength, a moderate attention to business or to domestic occupations is often serviceable. If the occupations whether for exercise or amusement, tend only to present gratification, or are undertaken merely as a task, they soon become insipid and irksome. Some plan for increasing its enjoyments, and interesting it agreeably, must be presented to the mind. Hence the importance of short journeys, visits to new and interesting parts of the country, and the like. The early part of the day is that best adapted for mental and bodily exercise. Towards evening active exertion of every kind becomes irksome, and of course hurtful.

Fourth. The repose of the dyspeptic must be regulated according to the extent of her debility. After exercise and for a short time succeeding each meal, rest will be proper. But the habitual inclination to inactivity is so great, that

care must be taken that it be not too much indulged. Never should the patients be permitted to sink for hours into that gloomy, listless, and dreamy state in which they so much delight; hence their hours of rest should be spent in light and cheerful converse with their friends, or in reading such works as occupy and amuse the mind without fatiguing it or exciting too much the feelings. In regard to sleep, the dyspeptic should retire early to bed and rise with the sun. By so doing, she will avoid the pernicious effects of late hours and evening parties. She will gain the period of the night for sleep, and rise in the morning with renewed strength and inclination for the occupations or exercises of the day. No species of excitement is more prejudicial in its effects on the digestive organs, than that attendant on late hours; no kind of inactivity more baneful, than lying in bed for the greater part of the morning.

Fifth. So intimately connected is the health of the stomach with that of the skin, that every attention should be paid by the dyspeptic to restore and maintain the proper functions of the latter. Cleanliness is of the first importance; to maintain which the regular use of the warm bath should be resorted to. Not only, however, does the warm bath clear the skin from all accidental impurities, but it also acts upon it as a gentle and agreeable stimulant. Promoting in this manner the circulation of the blood through

the minute vessels spread over the surface of the body, producing a healthful development of heat upon the skin, and causing the whole of the functions of this latter to be performed with due regularity and activity; it indirectly restores health and vigour to the stomach and other digestive organs. Frictions of the surface, with the hand, a coarse cloth, or a proper flesh brush, are also of great importance, as a means of promoting the functions of the skin, and in this manner of acting beneficially upon the stomach. They should be renewed daily over every part of the body, but particularly over the stomach and abdomen. The warm bath and frictions tend in a very great degree to remove that peculiar irritability of the nervous system from which many dyspeptics suffer so much; they render the body also less susceptible to changes in the atmospheric temperature, and promote sound and refreshing sleep. When the patient has not the conveniences for using the bath, advantage will be derived from sponging the whole surface with tepid water and then immediately drying it by means of brisk friction. The proper time for using the warm bath and frictions is when the stomach is empty—After active exercise they will often be found productive of a pleasurable feeling of refreshment. It is all important that the surface of the body be protected from external cold and dampness, by a sufficiency of clothing, adapted in its texture to the season of

the year and the state of the weather. Flannel in winter and during changeable weather, and coarse muslin for the rest of the year, ought always to be worn. The feet especially, which are generally disagreeably cold, even when the other parts of the body are of a comfortable temperature, should be kept warm and dry. It has been recommended, with the view of remedying this coldness of the feet, to produce in them an artificial excitement, by dusting the soles of the stockings, with mustard, cayenne pepper, or some other stimulant: the effects of such applications are, however, merely temporary. Bathing the feet in warm water previously to retiring to rest, and applying afterwards smart friction to them, and wearing constantly warm dry stockings, will be productive of more permanent good.

Sixth. Exposure to a free pure atmosphere is another means for the cure of dyspepsia which must not be lost sight of. The daily exercise of the patient should always be taken in the open air, and in as healthy a place as can conveniently be commanded. Short excursions into the country, or even removal for a season to some dry and elevated district is often productive in a very short time of the best effects. The dyspeptic should always avoid small, confined or overcrowded apartments during the day, as well as at night. She should be cautious also against exposing herself to the night air, to damp and wet, and to the extremes

of cold or heat. The midnight ball and evening party must be abandoned; for, independent of the improper excitement to which their votaries are subjected, at a period when they should be seeking that repose which the fatigued condition of so many important organs imperiously demands, they are forced to breathe for hours an overheated and impure atmosphere: and in a state when its injurious effects are most liable to be experienced, they are obliged to expose themselves to the damp and chilly air of night.

Seventh. The proper regulation of the passions is by every persuasive means to be urged upon the dyspeptic. While every cause capable of unnecessarily exciting or depressing the feelings is to be carefully withdrawn; a cheerful, even tenor of the mind is to be solicited by constant and varied occupation, both of mind and body. In regulating the passions exists certainly one of the great difficulties we have to contend against in the treatment of a dyspeptic: but much may nevertheless be done by a strict attention to diet, by a judicious selection of amusements and exercises, and by a proper regulation of the hours of rest; these will aid the moral means resorted to in giving cheerfulness and composure to the mind—without them the latter will have little or no effect.

Eighth. There are certain other means from which much benefit may be anticipated in the treatment of dyspepsia, which cannot be ranged under any of the foregoing heads, but which

here demand some notice. When the stomach is troubled constantly with acidity, and heartburn is experienced, an occasional dose of calcined magnesia, or a table spoonful of lime water combined with the same quantity of new milk, will often be found an excellent palliative. The patient should at the same time be confined pretty much to biscuit or crackers with milk or cream for diet, and to toast or rice water for drink. Vegetables and fruits, generally speaking, will be found to disagree with the stomach in these cases, by increasing the acidity.

The patient often suffers greatly from costiveness—days sometimes will elapse without an evacuation taking place from the bowels, and flatulence and griping pains to a greater or less extent will be experienced. Of the impropriety, in such cases, of a resort to purgatives we have already spoken. A proper regulation of the diet will very generally give the desired relief without their use. Bran bread, and a decoction of bran in water taken occasionally during the day, will often succeed, when at the same time proper exercise, the warm bath, and frictions, are also had recourse to regularly. Ripe grapes, strawberries, mulberries or peaches, when in season and eaten in moderation, will likewise tend to produce a lax state of the bowels. An occasional meal of rye mush and molasses or sugar, when it does not too much oppress the stomach, is also of service in this manner. Although soups are

improper as a diet for dyspeptics, yet we have frequently found a bowl of plain domestic soup, made of veal or mutton, one of the most effectual means of procuring a free discharge by stool, without the least inconvenience resulting to the patient. When all these fail, injections of tepid water may be resorted to—they are far less injurious than purgatives by the mouth.

The patient should recollect, however, that few things have a more powerful effect in establishing regularity of the bowels than the habit of soliciting a passage every morning.

The bowels are occasionally affected with diarrhœa; this seldom, however, lasts long, unless when excited by the abuse of purgatives, or occasioned by some indigestible or irritating article of food lodged in the intestines. When the bowels are too lax, fruit and vegetables should be avoided; and the patient should make use of rice water sweetened with the best loaf sugar, and crackers or stale bread and milk, or rice and milk, for her diet.

Shampooing, applied particularly over the region of the stomach, and to the external surface of the abdomen, is often productive of good effects, by restoring activity to the functions of the stomach, and regularity of action to the bowels. Shampooing consists in kneading, and rubbing with the hands, the whole surface of the abdomen, so as to move about and agitate, as it were, the stomach and bowels in every direction. This practice, in cases of dyspepsia, has received

a very considerable degree of notoriety partly, in consequence of its practice by Mahmoud at Brighton, England, and the announcements and publications of Mr Halsted in this country. The plan pursued by the latter, which he claims as being original with himself, is precisely that which was recommended and pursued by admiral Henry in 1787. The latter, it is true, kneaded the stomach and bowels with instruments of a particular shape; the former gives to them gentle shocks with the hands only—the principle however upon which the manœuvre acts is in both cases precisely the same, as well as the effects.

Mr Halsted commences by applying to the whole anterior surface of the abdomen warm fomentations, emollient poultices, the steam of hot water, &c. These applications are, no doubt, when properly applied and sufficiently long persevered in, of *decided* advantage; but at the same time the warm bath and frictions will be even more beneficial and far more agreeable to the patient. Mr Halsted next directs a gentle tap or slight push to be given with the fingers on the pit of the stomach until this part becomes acutely sensible; against this manœuvre we most solemnly protest, as in many cases it will have a tendency to excite a serious amount of distress or of inflammation in the stomach. After this he directs a series of gentle shocks to be given to the stomach, by which a motion is communicated to the latter very nearly resembling, he supposes, that communicated to it by the natural exer-

cises of the body. The manner in which this is to be done, is by placing the patient in such a position, as will favour most the relaxation of the abdominal muscles. He may sit for instance with his body inclining forwards. The practitioner, seated before him, places his right hand upon the lower part of the abdomen, pressing it as it were beneath the bowels, so that these shall rest upon the edge of the extended palm ; then, by a quick but gentle motion of the hand, the bowels are thrown upwards towards the stomach, by which a kind of pulsatory action is communicated to the latter, and a sensation excited in it similar to what would be occasioned by a slight blow over that organ. The manner of effecting this manœuvre may be varied, and the patient placed in different positions according to circumstances. Thus, the practitioner may stand at his back, and, passing his arms around him, clasp the abdomen in front with both his hands; or the patient may perform it himself, either in a sitting or lying position.

The whole object is to communicate a succession of gentle shocks or impulses to the stomach ; recollecting, however, that no force or violence of any kind is ever to be employed. In obstinate cases this manœuvre must be repeated frequently during the day, and at short intervals, continuing it for a minute or two each time--never however entering upon it until at least an hour has elapsed after each meal. As the stomach recovers its healthy functions, the

intervals at which it is repeated may be longer until at length twice or thrice in the course of the twenty-four hours will suffice, and then by degrees less and less frequently until finally it is entirely discontinued. We have not thought it worth while to enter into the explanations given by Mr Halsted of the manner in which the process here detailed produces a beneficial effect upon the functions of the digestive organs, as we believe them to be altogether incorrect. The kneading and shaking communicated by the hands or by instruments to the skin, abdominal muscles and the organs contained within the latter, act evidently like friction, by exciting the action of the skin; and, as a kind of passive exercise, they increase, no doubt, the tone of the muscles of the abdomen and indirectly the healthy action of the stomach and bowels. We have no idea, however, that this plan has any thing to recommend it over a proper course of frictions on the surface of the abdomen, and of daily exercise in the open air, with the occasional use of the warm bath.

As a general rule, liable to some few exceptions from the circumstances attending individual cases, the following is the manner in which the day should be occupied by the dyspeptic.

1. If the patient be much debilitated immediately after rising, which should be soon after day-break, she may take her first meal; at which a slice of cold chicken, a soft boiled egg, or a very moderate portion of beef steak or a mutton chop, may

with propriety be taken, provided the stomach is not labouring under that degree of irritation which would forbid solid food of every kind. When, however, the debility of the patient is less, she will find a short walk or ride in the open air before breakfast of very great advantage.

2. Some light and agreeable occupation of the mind, with rest of the body, is best for an hour and a half after breakfast.

3. From this period until that of the second meal, which should be midway between breakfast and bed-time, is the proper portion of the day for all the more active exercises both of mind and body. An hour or two previous to dinner will be an excellent time for a warm bath and frictions.

4. After the second meal the same rest should be taken as after breakfast.

5. Between the period of the second and third meals, the occupations, both mental and bodily, should be of the gentler kind. A ride in an open carriage or gig, or a short excursion on horseback, will be proper, and towards the latter period of the afternoon a walk should be taken in the open air.

6. The third and last meal should be taken early in the evening, and the period between it and bed time spent in cheerful conversation or light instructive reading.

7. At an early hour the patient should retire to rest—immediately before doing which, however, she will find great advantage from repeating the frictions over the surface of her body.

CHAPTER IX.

THE PASSIONS.

Their influence upon health and beauty—Connection between body and mind—Irritability and despondency—Love—Grief—Effects of temperance and exercise, in regulating the passions.

HEALTH cannot be long maintained without a proper regulation of the passions. They are implanted in the human constitution by the Great Creator for wise and useful purposes. Without them we could, in fact, have no motive for action, the mind would become torpid; and there being no foundation for morality or religion, virtue and vice would be nothing more than indiscriminate and unintelligible terms. Although the passions are thus essential to the happiness and dignity of man, it is only when

they are kept within their just bounds and directed into their proper channels. When allowed, however, to exceed their proper limits and to master reason or to be directed to unworthy ends, they degrade their unhappy slave, destroy his peace of mind, and undermine his health.

While evenness and amiability of disposition, contentment and cheerfulness, beside shedding a roseate hue over every event of life, exert over the body the happiest influence, giving a salutary impulse to the circulation of the blood, preserving all the organs in easy and agreeable play, adding a new charm to the outward deportment and an increased and fascinating loveliness to the countenance: their opposites, discontent, peevishness, envy, jealousy and ill nature, embitter life, impair the appetite, render the digestion of the food imperfect, destroy the strength of the body, and tarnish the fairest complexion. They are more fatal to beauty than the small pox was formerly; because their ravages are more certain, more disgusting and more permanent.

One great source of injury to health, to which females are too frequently liable, is an irritable or a desponding disposition; particularly when excited by trifles and matters of little or no moment. Over-exertion, or anxiety of mind, disturbs digestion and impairs the functions of the other organs, more than almost any fatigue of body. How many females give way

to every impulse of passion on the most frivolous occasions, or allow their minds to sink into gloom and despondency from every slight disappointment—even the anticipation of improbable evils; without seeming at all aware of the consequences. There is doubtless, great difficulty in so arming ourselves against the trials to which our feelings are frequently subjected, or against those vicissitudes and reverses of fortune we may be destined to undergo, as to experience no material disturbance from them; yet still we may exert a degree of fortitude, and call to our aid all those considerations which reason and revelation present, to heal our wounded feelings and mitigate the severity of our disappointment and our grief. We may thus maintain a sufficient tranquillity to prevent injury to our health; for nothing can be more absurd than, by giving way to our passions, to add the loss of health to our other pains and misfortunes.

The cultivation of a kind and virtuous disposition, and of that buoyancy of mind and heart beneath the reverses and sorrows, the trials and afflictions of this world which arises from a good conscience—a full confidence in the overruling wisdom and goodness of our Creator, and a well grounded hope of a blessed immortality, is, in fact, of as much importance in promoting health and longevity, as it is in insuring happiness.

Love is one of the strongest and most frequent passions to which the female mind is subject.

In its commencement it has a favourable influence on the functions of the body ; but being often in its progress attended by other pernicious passions, such as fear and jealousy, it is liable to become the source of infinite disquietude. No passion undermines the constitution so insidiously, or so effectually destroys the health, as love, when unreturned, or enkindled by an improper object, or when repaid by scorn and contumely. How many a fair form has been consumed by its smothered fires, and how many a noble mind has been driven by it to insanity!

Grief is another destructive passion more liable to take deep hold upon the mind of woman than of man. When violent and long continued, it depresses the energy of the whole nervous system, retards the circulation of the blood, disorders the functions of the stomach, and prevents the proper nutrition of the body. When nourished by indulgence, the energies of the mind, as well as of the body, often become its prey. Even after its first violence has been alleviated by time or by the cheering influence of friendly conversation, exercise and amusement ; it will often be found that a shock has been given to the constitution from which it can never again completely recover.

To the moralist we leave the inculcation of those divine precepts and laws by which our passions are to be controlled, and those virtues cultivated, which ‘give to the flower of fleeting

life its lustre and perfume.' It is our duty, however, to point out to our fair readers how greatly these moral means may be aided by a regular, active and temperate mode of life. This, by fortifying the health of the body, tends in no slight degree to tranquillize and render cheerful the mind—and to keep the passions within bounds. The soundness of the body, and the ease with which its several functions are performed, contribute essentially to the soundness of the mind, increase its energy, and insure its calmness. This intimate connexion between our physical and moral well-being, ought to be kept constantly in mind. Females in particular should recollect that if they suffer their bodies to be enervated by sensuality, by indolence or by excess, their minds will likewise become enfeebled, and incapable of regulating their actions and of directing them aright amid the many temptations and difficulties with which they are constantly beset.

CHAPTER X.

MARRIAGE.

Proper age—Effects of premature marriages on offspring—Health and vigour of the female—Predisposition to disease—Other physical defects—Deformity

NOT only the happiness of both husband and wife, but the health, comfort and welfare of their offspring, require that marriage should be entered upon with a much greater degree of caution, and that the fitness of the parties for fulfilling the important objects of the solemn contract, should undergo a much closer investigation, than is ordinarily the case. Our remarks on the present occasion will be confined exclusively to the conditions necessary on the part of the Female.

The health of the latter, as well as that of

the children to whom she may give birth, requires that her marriage should not take place until she has attained a fitting age—In other words, not until her body has acquired its full development and vigour. This period it would be difficult, if not impossible to designate by a certain period of years. The constitution, physical and moral education, state of health of the female, as well as the climate and other circumstances, may cause the development of the body to take place prematurely, or to be unusually retarded. We may nevertheless, as a general and very safe rule, fix it, in this climate, between the nineteenth and twenty-first years. That in many instances marriage may take place with propriety at a somewhat earlier age, or be delayed a few years later, we pretend not to say : the safest period however, we are persuaded, is that designated.

It is an undoubted fact that the females of our own country fade much earlier than those of Europe. Although climate may have its share in thus early robbing them of the freshness, vigour and charms of youth ; yet it must be confessed, that one great cause of their speedy decay is to be sought for, in the very early age at which the American females enter into the marriage state: very often, before the body has received its proper growth, and has become fitted for the proper fulfilment of the new and important functions, which are thus prematurely called into play. But, the faded beauty, impaired

health, and premature old age of the mother—the augmented pangs and danger of child birth, to which she is subjected, are not the only evils attendant on a too early marriage. Its baneful effects extend also to her offspring; who are too often curtailed in stature, debilitated in body, and of enfeebled intellect; or, they are born with a strong predisposition to scrofula, rickets, consumption and other diseases, by which their lives are embittered or early destroyed.

A too late, as well as a too early marriage is likewise attended on the part of the female with numerous inconveniences. The effects upon the offspring are by no means, however, so pernicious, when marriage has been delayed too late, as when it is entered upon too early in life: but the difficulties and pains of labour add greatly to the suffering and the danger of the mother.

Not only is it requisite for the body of the female, previously to marriage, to have acquired its full development in order to insure the health, physical comfort and longevity of her offspring; but it is necessary that she be also healthful and vigorous, and free from any predisposition to disease. Not unfrequently, it is true, children with all the appearance of robust health, are born of mothers of enfeebled constitutions, or who are even actually labouring under disease; but such appearances are in the majority of instances deceptive, and the little beings soon droop and perish. “We have many times,”

remarks Dr Dewees, "seen children of robust appearance from parents of feeble health; but we do not recollect a single instance, where such children attained an age much beyond manhood—old age was out of the question. Indeed it would seem, in many instances, that the children of such parents most frequently give an early promise of future health; but it is illusory—for it is never, or but very rarely realized."

There are certain diseases, or rather a predisposition to them, transmitted from parent to child, and which do not manifest themselves, sometimes for many years after birth, or until they are called into action by some exciting cause. They who inherit such a predisposition, enjoying for many years a comfortable state of health, seldom suspect the disease which is lurking in their systems and waiting for some exciting cause to hurry them rapidly to their graves; and their ignorance often hastens the development of the disease by lulling them into fancied security. Every female, therefore, of an enfeebled constitution, or who is evidently predisposed to scrofula, to consumption, to cancer, to insanity, to epilepsy, to convulsions and the like affections; or who is actually labouring under either of them; should consider it a conscientious duty to refrain from marriage, lest she be the means of bringing into the world a miserable offspring, to languish for a few years in misery and pain.

Certain other physical disabilities may exist on the part of the female, which would render

her ineligible for the married state—these should neither be concealed nor passed over lightly ; since, with a knowledge of them, it would be dishonest towards the man she marries, as well as fatal to herself, to become a wife.

The existence of any disease or malformation of the womb and of its appendages should be considered, by every female, as an insuperable barrier to her marriage. We would also recommend a woman who is deformed in body, to remain for ever single ; as she may purchase the title of wife at too high a price—the most excruciating tortures and even life itself ; to say nothing of the effects which such deformity may have upon the children to whom she might give existence. To sum up therefore the physical requisites in the female, to adapt her for the marriage state :—her body must have attained its full development and vigour, and be free from deformity ; she must possess a sound constitution, and be neither predisposed to nor labouring under disease.

PART SECOND.

DIRECTIONS FOR THE CONDUCT OF
PREGNANT AND LYING-IN WOMEN.

CHAPTER I.

PREGNANCY.

*Its safety promoted by prudence—Its symptoms—
Premonitory signs—Quickening.*

WE come now to consider the conduct proper to be pursued during one of the most interesting conditions of the female sex. Pregnancy is a pleasingly anxious state. Most married women feel a pleasure in the prospect of becoming mothers; and hence always experience more or less anxiety respecting the issue, from the commencement until the termination of their pregnancy. It is a happy circumstance that, under prudent management, to very few women is this state one of any great suffering or danger. The apparent infliction which child-bearing imposes on females is, in a very great measure, due to their own imprudence. By a proper physical education, and an adherence to that course of

life by which the health and vigour of the body and the firmness of the mind are best secured, all danger may very generally be avoided, and the whole period of pregnancy be entirely divested of suffering. During this state the imprudences of youth often meet their punishment; while a previous life of temperance, of activity and of virtue exhibits its beneficial effects. With judicious management, the female who has pursued the latter need have nothing to fear in the prospect of becoming a mother.

Pregnancy is so equivocal in its symptoms, that it is frequently no easy matter to determine its existence, for several weeks after a casual suppression of the periodical evacuation. The sympathetic connection between the womb and the other parts of the body is such, that in the earlier stages of pregnancy a variety of morbid symptoms, more easily felt than described, are produced in different remote organs, which are very apt to mislead the female who has never borne a child.

During the first three months of pregnancy, there is no alteration in the external appearance, except a peculiar variation of countenance, readily recognized by an observant eye. The cheeks are rather flattened, leaving the eyes prominent, the skin is often freckled or of a leaden hue, and the whole expression of the face is somewhat changed. The first circumstance calculated upon is a suppression of the

monthly discharge, which, together with a sense of fulness in the breasts, headach, flushing of the face, a sense of burning in the palms of the hands, and more or less disorder of the stomach constitute the premonitory signs of pregnancy. Toothach, and an increased discharge of saliva with a frequent disposition to spit, are also very commonly present. The disposition of the mind is early affected. A placid temper becomes easily ruffled, and propensities for singular and indigestible articles of diet often take place. If the female disposition ever deserves the denomination of whimsical, it is at this period; but as this caprice is produced by the condition of the uterus, and the sympathy between that organ, the stomach and the brain, over which the will has no direct control, the utmost charity should be exercised towards it. A capriciousness of mind, changeable appetite, with frequent nausea, disrelish of ordinary food and a craving for uncommon diet, form the list of breeding symptoms, as they are usually called. The presence of these alternately excites the hopes and the fears of young women: but patience must be exercised; nothing positively certain as to her actual condition can be determined until the fourth or perhaps near the fifth month. About this period, the womb is so far enlarged as gradually to ascend towards the stomach: the motions of the child are now first felt by the mother. The sensation caused by the rise of the womb from out the bony basin

in which it had previously been confined, or the motions of the child felt soon after, constitute what in popular language is termed *quickenng*. These, with the progressive and visible increase of the womb, and the appearance of milk in the breasts, are the most unequivocal signs of pregnancy. Though even these may be delusive.

Having premised thus much in regard to the ordinary phenomena of pregnancy, we proceed now to lay down the course of conduct to be pursued by females in whom they occur, in order to insure their own comfort and their offspring's safety.

CHAPTER II.

CONDUCT DURING PREGNANCY.

*Dress of pregnant women—Injury from tight lacing
—Exercise—All violent exertions injurious, especially
about the period of quickening—Repose—Early rising
—Company—Food—Drinks—Regulation of the mind
—State of the bowels—Bleeding.*

IF good sense were more generally to preside, than it does, over a lady's toilet, there would be little necessity of any change being made in her ordinary dress, during at least the first four or five months of pregnancy. But, in the present state of fashionable attire, a change is absolutely demanded, from the moment pregnancy is ascertained to have commenced. If a female have previously no regard for her own health and comfort, and think but little, if at all,

of the being to whom she may be destined to give birth, now, at least, when not only her own freedom from suffering and danger, but the very existence of her anticipated offspring, may be jeopardized by an improper dress and tight lacing, it is to be hoped, she will cheerfully relinquish both—let the dictates of fashion be what they may. The dress of a pregnant woman should be of such a form and size as will most effectually leave every part of her body, but especially her chest, waist and abdomen, free from the least restraint. The wearing of tight dresses, and particularly the corset, during a state of pregnancy, is attended with the utmost danger. The undue pressure which they exert upon the body of the mother, besides impeding her digestion, breathing, and the free circulation of her blood; the healthful performance of all which functions is all-important to the well-being of the infant she carries; may either induce a miscarriage, or, by preventing the proper development of the womb and of the little being within it, occasion the death of the latter, or cause it to be sent into the world a dwarf in size or a monster in shape. Besides all this, the serious immediate evils to which tight lacing often gives rise, ought to be a sufficient warning to all females of the impropriety of persisting in it during pregnancy. It has been known actually to displace the womb, and to produce difficult and dangerous inflammation of that organ or of the breasts. The close sympathy

which exists between the latter and the womb is such, that injury done to the one is very generally followed by disorder in the other ; a fact which should teach mothers the impropriety of wearing, during pregnancy, any thing tight over the breasts ; for this of itself may endanger the healthy and symmetrical growth of the infant by deranging the functions of the womb, while it never fails either to prevent the mother from suckling her own infant, or to cause tedious and painful inflammation of one or both breasts. Let the pregnant female, therefore, as she values her own health and happiness, the freedom from deformity—nay the very existence of her infant, assume, the moment pregnancy has commenced, if she has not before, a loose and commodious dress. During the latter months, it should merely hang from the shoulders, so as not to compress in the slightest degree any part of the body.

Of the propriety of a dress sufficiently warm to guard against the effects of cold, as well as of any sudden changes in the weather, nothing need be said, as common sense will point this out to every female.

Exercise, so important always for the support of health, is still to be regularly pursued. But, during pregnancy, it must be of a less violent and active character, than such as would be proper, and might with perfect safety be indulged in, at any other time. Especially, should all unnecessary fatigue, violent and long conti-

ned exertion, as walking too fast or too far, jumping, running, dancing, &c. be avoided. Dancing in particular, as well as going hastily up and down stairs, lifting or carrying heavy weights, are exercises peculiarly hazardous during a state of pregnancy. Abortion, or displacement of the womb, has repeatedly been occasioned by them. Some women are blessed with a vigour of constitution which enables them to exert themselves to almost any extent and under almost any circumstances; and an unhappy spirit of emulation too frequently induces the young and unthinking, whose bodies are less vigorously constituted, very injudiciously to imitate the feats of the former.

Every kind of exercise which can be indulged in without fatigue, and which produces no jolting of the body, nor any very sudden, violent or long continued action of the muscles, is proper for the pregnant female; but the example of others should not induce her to venture upon any other—an over degree of prudence is here better than the least degree of risk. There is no period of pregnancy, at which incautious exercises are so hazardous, as about the time of quickening. More than ordinary care should be taken, for some weeks before and after this has occurred, in ascending and descending stairs, going in and out of carriages, stepping off a curb stone, and in rising out of bed. Towards the latter period of pregnancy the same caution is requisite: indeed at this period it will be prudent to avoid

even any powerful exertion of the voice, as in loud talking or singing.

In her ordinary periods of repose, provided they have been well chosen, the pregnant female need make no change. Let her, however, be even more punctual than previously, in retiring to bed at an early hour of the night, and in rising betimes in the morning. When a woman has the pleasing prospect of becoming a mother, it is no longer a time for her to revel in midnight assemblies. Such a course not only deprives her of her natural rest; but in other respects destroys her health, endangers the safety of her infant, and often causes its premature birth. While, on the other hand, too long an indulgence in repose, and especially in warm feather beds, increases the irritability of her system, lowers its energies, and causes the same danger to the fruit of her womb, as spending the night in wakefulness, amid company, or in a round of dissipation. We may here remark that the pregnant female should at all times avoid crowded and overheated rooms; and, as her pregnancy advances, it will be prudent to relinquish entirely the excitement invariably attendant upon parties of pleasure, and mixed companies for whatever purpose assembled. On the contrary, the company of cheerful and sensible friends, enjoyed amid the domestic circle, is of the utmost advantage. The tedious, portentous hours may be thus beguiled, by pleasurable conversation and innocent amusements—

letting the final term steal on without apprehension or reluctance.

In regard to diet, during pregnancy a woman should live within the bounds of strict moderation, and on plain and wholesome food. She should avoid the indulgence of every inordinate appetite, and reject carefully all such substances as have a tendency to produce a costive state of the bowels, to cause flatulence, or which may give rise to indigestion; as made dishes, high-seasoned and rich food, pastry, flatulent vegetables, unripe fruit, and the like. The supposition, so frequently entertained, that, during pregnancy, a greater amount of or more nourishing food than ordinary is required, is altogether unfounded. So far from this being the case, in the majority of instances the irritability of the stomach and the tendency to fever during pregnancy point out the necessity of a reduction and greater simplicity in diet, rather than an increase. This tendency to excessive irritability in the system during child-bearing should cause the female to avoid every species of food by which it may be increased, and especially strong tea and coffee, as well as preparations of opium, and the like. She ought never to give way to the depraved appetites, or those longings for certain articles of food, or even substances absolutely of an indigestible nature, not unfrequent during pregnancy. This indulgence is liable to disorder the stomach, and is in other respects attended with injurious effects.

Nor need she fear, if such absurd longings be not gratified, that her child will incur the risk of blemish or deformity. Such an apprehension is neither warranted by reason, nor confirmed by experience.

For drink, during the period of pregnancy, nothing can be taken with prudence, excepting pure water, toast and water, or similar bland and simple fluids. An indulgence in liquors or cordials, in wine, distilled spirits or even malt liquors, should be cautiously shunned, whether as an ordinary drink, or only occasionally under the pretext of sustaining the strength of the body, calming sickness, relieving pain, or expelling wind. Females must not persuade themselves, that it is only the excessive indulgence in such articles that is mischievous; they should clearly understand, that, by irritating the stomach, interfering with the proper digestion of the food, and unduly stimulating the system, they are highly injurious at all times, and in all quantities to the pregnant woman. The ridiculous notion, that a moderate quantity of intoxicating drinks is necessary during pregnancy and lying-in, has not unfrequently created an inclination for their habitual use, destructive alike to happiness and health.

Nothing contributes more certainly to the safety and future good health of the child, than cheerfulness or at least equanimity of mind on the part of the mother during the period of her pregnancy. She should, therefore, guard most

sedulously against any violent gusts of passion—against sudden alarms of every kind; as well as against anxiety of mind, fear, or undue depression. Tranquillity, cheerfulness, confidence and hope, should by every rational means be excited and cherished. While indulgence in the first class of emotions we have enumerated will prove highly injurious if not fatal to the mother and child, the latter will do much in insuring the safety and well-being of both. A pregnant female will do well to avoid, as much as possible, placing herself in a situation which may subject her to unpleasant sights, or to seeming or possible dangers. She should turn a deaf ear to every tale of disaster or of horror, purporting to have happened to pregnant and lying-in women, and to all the gossip of the credulous and malignant, by which the confidence and cheerfulness of her mind may be impaired, and her thoughts turned too anxiously upon the nature and result of her own condition. When she has been so unfortunate as to have suffered any great alarm, been surprised by any unexpected event, or appalled by some frightful object or occurrence; she should dismiss as quickly as possible its influence from her mind, never dwelling upon it with gloomy forebodings, nor in unreasonable fears for the future consequences it may produce upon her child or upon her own safety. If no immediate consequences ensue, all dread of future evil may in general be dismissed: the continued effects of depressed

spirits and an anxious mind are in such cases far more injurious than any sudden shock to which the feelings may have been subject.

An important precaution, which should never be lost sight of during the whole term of pregnancy, is to preserve the bowels in a perfectly regular condition. To do this, all that is in general required, is for the female to confine herself to a simple diet, both in regard to food and drinks—to make use of gentle exercise daily, if possible in the open air, and not to spend too large a portion of her time in absolute inaction, or in sleep. Some gentle laxative, or an occasional injection, may in some cases be required, particularly when the state of the bowels has been for a long time neglected. Their use should, however, as much as possible be avoided, as they are liable to produce sometimes, especially if frequently resorted to, disagreeable effects, and they rather confirm a costive habit than remove it. The use of such purgatives, let it be recollected, which produce a too active or violent effect upon the bowels, is highly pernicious during pregnancy; the loss of the child may be occasioned by them. To avoid costiveness, all substances which tend to confine the bowels ought to be shunned, such as high seasoned and stimulating food—astrigent wines—chalk—anodynes and the like; the female should, also, be careful not to disregard the calls of nature, when they intimate the necessity of an evacuation.

A very common opinion, entertained by females, is, that bleeding during pregnancy is not only necessary but proper, and that to omit it would be attended with bad effects. This, however, is a mistaken notion. The mere circumstance of pregnancy is no proper indication for blood-letting—on the contrary, if during that period blood be unnecessarily or repeatedly drawn, more or less injury is always produced both to mother and child. The loss of blood is demanded only when symptoms of disease are present; or for the removal of pain, incessant vomiting, headach, a sense of over fulness, giddiness, the loss of or imperfect sight, &c.

In all such cases, however, it is better, when practicable, to have the advice of an experienced physician. The woman, in particular, who is in the habit of miscarrying, should never venture on blood-letting, without such advice, as it sometimes produces the evil it was intended to prevent.

CHAPTER III.

CONDUCT AFTER DELIVERY.

Necessity of rest and quiet—Impropriety of stimulating food and drinks—Putting the child to the breast—Ventilation, temperature and cleanliness of the chamber—Change of bedding and body clothing—Visitors—Calmness of mind—After pains—Free state of the bowels—Milk fever—Inflamed and gathered breasts—Sore nipples—Sitting up—Leaving the chamber.

PRESUMING that the female has passed happily through the anxious period of pregnancy, and has been safely delivered of her burthen, the great object is now to restore, as quickly as possible, her strength, to avoid by a prudent course of conduct the various accidents to which she is liable, and to qualify her for the pleasurable exercise of her maternal duties.

There is, perhaps, no condition of life, in which women are more frequently injured by mistaken kindness and a system of injudicious interference, than during lying-in. Heating cordials and stimulating food are too often given to remove the fatigue and debility which succeed labour; the chamber is closed, and the curtains of the bed are drawn together, to prevent chills and fevers: thus, in addition to partial suffocation, the languid patient is not permitted to enjoy the cordial effects of rest and sleep, but is sweated and harassed out of her remaining strength, under the pretence of avoiding evils which this very course tends most effectually to produce and aggravate. More enlightened views have, it is true, penetrated of late into the parturient chamber; and many of the absurdities formerly committed there have, in consequence, been reformed: but much still remains to be learned by females and their nurses, before they will consent that the entire management during lying-in shall be confined, strictly, to keeping the mother perfectly quiet, and at rest in an horizontal position, furnishing her with light but nourishing food, allowing a free circulation of fresh air through the bed chamber uninterrupted by bed curtains, keeping her person clean and comfortable, and her mind composed. And yet, experience and reason teach us that this is all that is required, to insure her safety, and a speedy restoration to her ordinary health and condition.

Immediately after delivery, the lying-in female should impose upon herself the most perfect tranquillity, and endeavour to obtain that repose, for which her more or less exhausted condition so loudly calls. She should be left entirely undisturbed, the room should be darkened, and all conversation on her part or in her hearing rigidly abstained from. The moment the gloomy apprehensions, which precede or attend delivery, are dispelled by the gratification of having become a mother, and of being relieved from pain and uncertainty; violent transports of joy too often succeed, the noisy congratulations of friends and relatives are immediately proffered, and excessive talking is indulged in:—the exertions thus excited, added to the previous fatigue, contribute still further to exhaust the patient. All this should be avoided. Pleasure and joy should be for a moment forgotten, and the necessity for present repose alone kept in mind.

The horizontal position should be constantly preserved by the mother for one or two days after delivery. On no consideration should she attempt to rise, or even assume a sitting posture. In effecting whatever change of clothing she may require, this caution should not be forgotten. Its neglect will endanger fainting, profuse discharges of blood, or a falling down of the womb; which are always disagreeable, sometimes very dangerous occurrences.

The Diet of the lying-in female, as we have

already stated, should be light, but nourishing, and taken in moderation: for the first day or two, plain gruel, panada, tapioca, sago and the like—succeeded by simple meat broths, a soft boiled egg, &c. should constitute her food. After the first day, if no fever be present, nor any other circumstance which would forbid its use, animal food plainly cooked may be eaten; in such moderate quantities, however, as never to allow the stomach to be overloaded. But little change should be made in the diet; better keep the system up to the normal standard. It is true that some women eat and drink with impunity, as at other times—still it would be better, and it is always safer to restrict the diet, than to run the risk of any bad effects being produced by overfeeding, or by partaking of improper articles. For drink, toast and water, apple-water or weak tea is all that is required. The use of stimulating liquors during confinement cannot be too severely reprobated. Even had they the negative character of doing no immediate harm, it is better to avoid them, lest an habitual craving for them be acquired; but we denounce them as directly injurious, by overstimulating the system, disordering the stomach, and retarding the re-establishment of every female who makes use of them.

As soon as the mother has obtained a few hours' rest, the infant should be applied to the breast. This is an important rule, from an adherence to which she ought not to permit herself

lightly to be persuaded. The advantages of allowing the infant to suck the breast of its mother, as soon as possible after its birth, are many and important, as well to the child as to the mother. The first milk which the child draws has the effect of cleansing out its bowels, prevents the necessity of giving medicine to it to produce that effect, and removes all pretext for an officious nurse cramming it with food, to prevent its starving during the many hours she denies its natural aliment to it. The early application of the child to the breasts, is the best means also of preventing the latter from becoming over-distended, inflamed or gathered, and secures the mother from the pain and often permanent inconvenience which thence result. Should the secretion of milk not have occurred previously to delivery, the act of suckling will encourage and hasten it. If the infant be not put to the nipple until the breasts have become over-distended with milk, the nipples are often so much retracted, that it cannot lay hold of them, without the greatest difficulty: its ineffectual efforts produce exquisite suffering to the mother, and are often the cause of sore nipples. In all cases, unless circumstances be present which preclude altogether the possibility of suckling, or render it imprudent, the mother should make every effort to induce her infant to take the breast; her own comfort and the health of the child being materially promoted by the act of suckling. When circumstances forbid

this, the breasts should be carefully drawn several times a-day, and, with the view of preventing a copious flow of milk, she should use a very spare diet, keep the bowels freely open by mild laxatives, and abstain as much as possible from liquid aliments.

The Lying-in Chamber should be as large and airy as possible, and it should be regularly ventilated by the admission of fresh air; the female who occupies it being at the same time so guarded by clothing, or a screen, as to prevent her from experiencing the direct influence of the draft of air thus admitted. In winter the temperature of the room should be kept of a comfortable warmth, by means of an open fire—taking care that at one period it be not oppressively hot, and at another chilly or cold—but of an equal temperature throughout the day and night. The bed should be entirely without curtains: all the advantages apparently derived from bed-curtains are more than counterbalanced by their confining the air within the bed, and in mild weather increasing too much the heat of the patient. No cooking should be allowed within the chamber; and as a further means of preserving the air within it perfectly pure, the utmost attention should be paid to cleanliness.

The Bedding and Body Clothing of a lying-in woman should be frequently changed, taking care, however, that, for the first two or three days, in effecting this change, she be not raised from the horizontal position, nor subjected to

too much fatigue. All unnecessary attendants and visitors should be excluded without ceremony: they vitiate the air, improperly excite the patient, and interfere with that repose which her condition requires. She should be preserved even from the labour of replying to the useless interrogatories and congratulations of friendship itself.

The influence of the passions has a powerful effect upon the welfare of a lying-in woman. Every care should, therefore, be taken to keep her mind calm, cheerful and contented. All ebullitions of passion, fear, fright, grief and anxiety, even immoderate joy, and excessive excitements of every kind, are in the highest degree injurious. Quietude both of mind and body is indispensable to her speedy and perfect restoration; nor should it, if possible, be interrupted by the officiousness of friends, the indiscreet conduct of relatives, or the cruel and impertinent gossip of idle neighbours.

When the process of child birth has been happily completed, the female naturally expects exemption from any further pain; but in the greater number of cases this hope is fallacious.

After-pains, as they are termed, more or less violent, usually take place, excepting perhaps at the birth of the first child. These pains frequently harass the mother, and prevent her from obtaining the requisite amount of repose. But irksome as is this continuance of pain, after she had hoped the measure of her sufferings was

already completed; yet, as it is generally occasioned by the womb contracting in size, and expelling from its cavity any clots of blood which may accidentally form there, it is in some measure a necessary evil, and should be borne with patience, if not very violent or too long continued. Frictions over the region of the womb with a warm hand dipped in olive oil, by exciting the prompt contraction of that organ, will very generally relieve the after-pains: if, notwithstanding, they continue with great severity or continue for many hours, anodynes may then with propriety be administered to moderate or remove them. The physician in attendance will, however, in all such cases give the necessary directions.

It is important to preserve a free state of the bowels subsequently to delivery. *Costiveness* is particularly to be guarded against. During the first forty-eight hours, it is better, however, not to disturb the female, unless the necessity be urgent, by the administration of injections or medicine by the mouth. Very generally, if her diet has been properly chosen, free evacuations occur spontaneously; if not, about the third day, under the direction of the medical attendant, some mild but effectual laxative should be given.

Occasionally, and particularly with a first child, milk appears in the breasts before confinement, but generally it is not secreted, in any quantity at least, until after the birth of the infant. Ordinarily, it is between the second and third

day, that the breasts become turgid with milk. When the secretion is moderate, and the child has been early applied to the nipple, it causes no inconvenience: but when copious, and the breasts are permitted to become distended by it; when the mother is of an irritable habit—has been allowed too stimulating and nourishing a diet—has been much excited or exposed to cold or damp; it gives rise, very commonly, to a pretty smart attack of fever—generally denominated the *milk fever*. This is preceded by a sense of chilliness, and accompanied by a hot skin, sickness, restlessness, pains in the head, back and breasts, and considerable thirst. Sometimes the fever subsides entirely in twenty-four hours, but in other cases it is more severe and of longer continuance. Medical advice in such cases is indispensable. Sudorifics will often be demanded, with warm emollient fomentations to the breast—cooling laxatives, and other remedies. The patient must be restricted to a very spare diet, of light unirritating food, have cool drinks, be clothed as lightly as the temperature of the season will permit, and kept perfectly quiet. By prudent management the occurrence of this fever may in almost every instance be prevented.

Inflamed and gathered breasts constitute another of the inconveniences to which lying-in women are occasionally subject. They may in general be avoided, when the management of the female after delivery has been such as we

have pointed out, by the early application of the child. Whenever the breasts are noticed to become tense, hot, swollen, and painful; without delay, leeches should be applied to them, in number and frequency proportionate to the extent of the swelling, and the degree of inflammation present. Cooling laxatives are then to be administered, and the breasts covered with cloths wet with a solution of sugar of lead in water; or if this be objected to, from the apprehension of the lead being absorbed by the delicate surface of the nipple and its areola, the cloths may be soaked in a solution of alum, or muriate of ammonia. The patient should retain a recumbent posture, or if she sit up, the weight of the breasts should be supported by a handkerchief, passed beneath them and around the neck. By this treatment, the swelling and inflammation may frequently be reduced, and the formation of an abscess prevented, which is always to be desired. If, however, the breasts gather, they should be enveloped in a soft emollient poultice frequently changed; and as soon as the matter approaches near to the surface, the tumour should be opened with a lancet, which causes very little pain, prevents an unsightly scar, and allows the matter more fully to discharge itself than when the abscess is allowed to burst. In cases of simple hardness of one or other of the breasts, without fever or pain, anointing it with olive oil, and then covering it with a piece of soft silk, will frequently answer every purpose.

The countless number of washes, poultices, salves and plasters recommended by the knowing visitors of a lying-in chamber, as infallible preventives for gatherings in the breasts, are not only useless, but many of them are positively injurious—hurrying on the very evil they are intended to prevent.

Many women suffer very much during their confinement from *sore nipples*. This painful affection often arises from the irritation of the child's mouth, in its attempts to seize the nipple when it has been depressed by tight lacing, or by the over-distension of the breast with milk; or by inattention on the part of the mother to keeping the nipples, and the clothing in contact with them, perfectly dry. When excoriation does occur, the nipples should be washed two or three times a day with a solution of one drachm of alum to about eight ounces of rose or hydrant water, and afterwards smeared with sweet-oil or a little simple cerate. Great care should be taken to prevent the tender nipple being irritated by the clothes—this is most effectually done by covering it with a little cup of wax. If only one nipple is affected, the child should be confined to the other. A slight soreness of the nipples need not prevent the continuance of suckling: the mother should take care, however, the moment the child leaves the breast, to wipe the nipple perfectly dry with a soft cloth, anoint it with sweet oil and cover it with the wax cup. But when both nipples are severely affected

nursing must be given over for a few days—and the breasts should be carefully drawn by means of a nipple glass twice or thrice a day. In case of sore nipples, it has been proposed, with the view of protecting them, to make use of an artificial teat, by which the child will be able to suck tolerably well; and the nipple itself, being undisturbed, will soon heal.

For the first eight days after confinement it is better for the female to retain, uninterruptedly, the horizontal position; after this she may be allowed to rise while her bed is made, and in a day or two later she may sit up for an hour at a time, until her strength and other circumstances will allow her to remain out of bed for the greater part of the day. By rising too soon, remaining up too long at a time, or making any considerable bodily exertion, a falling down of the womb, or a flooding, will be endangered. For several weeks indeed after getting up, women should recline frequently during the day upon a sofa. Even when every thing has gone on well, and her health and strength are rapidly re-established, it will not be prudent for her to leave her chamber under a week—nor until a still later period when the weather is very cold, damp or inclement, and her constitution is delicate. No female should subject herself to partial exposures, under the hope of ‘hardening herself.’ As soon as her strength is fully recruited, and the state of the weather will permit, she should take frequent gentle exercise

in the open air. Of course many circumstances may occur requiring a much longer confinement to bed or to the chamber, than what is here specified: our observations have reference especially to confinements after a natural labour, and where no unfavourable occurrences supervene. A long and unnecessary confinement is attended with as bad effects, as a too hasty getting up.

CHAPTER IV.

NURSING.

Propriety of the mother suckling her infant—Advantages resulting from it to both—Circumstances which may prevent it—Diet during nursing—Excessive eating and stimulating food injurious—Drink of a nurse—Water the best—Wine and fermented liquors to be abstained from—Exercise—Cleanliness—Influence of the passions of the nurse upon the infant—Precautions in giving suck—Improper practices—Feeding infants at the breast—Weaning—Proper nursing prevents the necessity for medicine.

UNLESS very particular and urgent reasons prohibit, the mother should always support her infant at her own breast. It is the dictate of nature, and the requirement of reason and common sense. No children exhibit such unequi-

vocal signs of health, or bear up so well under disease as those who live exclusively on their mothers' milk. Whenever the voice of instinct and nature is implicitly obeyed, such is the course which it points out; and happy would it be for mankind, if parents would so far return to a state of nature, as to regulate their own diet and that of their children by her simple and salutary dictates. In various parts of the world, where children attain to the greatest beauty and vigour, they are not permitted any other nourishment than the mother's milk, until they are twelve months old; and some of the finest and most robust children to be seen in this country are such as have been reared in a similar manner.

The idea that suckling is injurious to the mother's constitution is altogether unfounded; on the contrary in most cases her health is materially benefited by her performing the duties of a nurse. Delicate females often derive strength from nursing; and many of the infirmities to which they are liable are removed by it. If the period of pregnancy be excepted, fewer women die whilst giving suck, than at any other time; and it is a very common observation, that their spirits are more lively and uniform, their tempers more placid and even, and their general feelings more comfortable and pleasant than under almost any other circumstances.

When, however, the mother is of so delicate a constitution that it is impossible for her to

undergo without danger the task of nursing her babe; when the breasts do not secrete a sufficient supply of milk, or when, from the presence of disease of these or any other parts of the system, the milk furnished is thin, poor and vitiated—affording not a sufficiency of nourishment to the child, or such as it would be imprudent to allow it to partake of, then must she resign her child to the charge of another; taking care, however, that she to whom the maternal office is delegated is perfectly adapted, from her age, her constitution, the state of her health, her habits and her manner of living, to perform properly its important duties.

The Diet during nursing should be simple, nutritious, and such as is readily digested. Provided it be plain and nourishing, a mother may, with impunity to her infant, partake of almost any article of simple food, to which her stomach has been accustomed: whatever agrees well with herself will rarely be found to disagree with the child at her breast. A nurse should live on a diet composed of a due proportion of animal and vegetable aliment. It is a mistaken notion, that it is necessary for her to refrain from any wholesome vegetable if it be well boiled and eaten in moderation, or from perfectly ripe and slightly acid fruits. Her food should not be highly seasoned nor fat. Rich gravies, pastry, and every other indigestible article, she will avoid, as well for her own sake as for the welfare of her child. If a woman who is nursing

eat heartily, but not immoderately, of plain food, avoiding every thing that is stimulating, she will insure a full supply of milk, and the maintenance of her own and her infant's health. One hearty meal of animal food during the day is quite sufficient. It is a common but very pernicious error, to suppose that it is necessary for a nurse to indulge freely in rich and stimulating food to insure a plentiful supply of milk; this has often, on the contrary, an opposite effect, by inducing a disordered state of the stomach and a degree of feverishness. The drink of a nurse should be water—simply water. No objection, it is true, can be urged against the use of milk and water, toast and water, weak balm tea, thin gruel, and similar bland diluents: we must, at the same time, insist upon the fact that plain water is the most natural and wholesome beverage for habitual use. Fermented and distilled liquors, as well as strong tea and coffee, should be strictly abstained from, as alike prejudicial to mother and infant. Never was there a more absurd or pernicious notion, than that the use of wine, porter, ale, or of milk punch, is necessary to a female whilst giving suck, in order to keep up her strength, or to increase the amount and nutritive properties of her milk. So far from displaying such effects, when taken in any quantity they produce others directly the reverse.

Moderate daily exercise in the open air, sufficiently active to counteract the effects of her

sedentary habits, but not carried to the extent of producing fatigue, should never be neglected by a female during the period she suckles her infant: keeping up the healthy action of the system assists in insuring an abundant supply of milk, while it improves its qualities.

Cleanliness, both as it regards the mother and the child she suckles, is always an object of importance, but never more so than during the period of nursing. Few objects are so disgusting as a slovenly nurse—few infants so apt to be fretful and sickly as those whose persons and clothing are kept unclean.

Whilst giving suck a female should endeavour to preserve as cheerful and quiet a state of mind as possible. All powerful emotions and sudden or long continued agitations of the mind invariably do injury to an infant while at the breast. The milk becomes vitiated, its secretion is very often diminished or altogether suspended; and the little sufferer has not unfrequently fallen a victim to the indulgence of violent passion, grief or jealousy in the mother. We too seldom take into consideration the pernicious and long continued, if not permanent influence which the mental affections of the mother, during the period of suckling, may have upon the temper, the inclinations and happiness of her offspring, by producing permanent derangements of digestion, and consequent imperfect nutrition, and disturbance of the nervous system.

No fixed rules can be laid down as to the frequency with which the child should be applied to the breast during the day and night. All that is necessary to be kept in mind is that the child should never be kept from the breast when it evidently craves to suck, on the one hand; nor, on the other, coaxed and teased to take it when it shows no inclination. It is too much the custom with mothers to apply the child to the breast whenever it cries, or is restless and uneasy, or whenever they feel anxious to lull it into sleep. By overloading in this manner its little stomach, perfect digestion is prevented, the milk taken turns sour, and the child becomes still more restless, fretful and uneasy—while sickness and vomiting, or pains in the bowels, if not more serious disease, are not unfrequently excited. The food which the child takes at any one time requires two, three or more hours for its complete digestion and assimilation. Keeping this fact in mind, by paying great attention to the craving which the infant exhibits for the breast whenever nature demands a new supply of food, and allowing it to quit sucking the moment that craving is satisfied; the mother will be enabled to fix upon something like regular periods for giving it suck: to which habit will soon accustom the infant, to such a degree that it will crave its food at no other times.

It is not uncommon to allow the child to be all night at the breast; this is a very pernicious habit. It not only deprives the infant of its

rest, but its little stomach becomes overcharged, and it must either reject the milk, or suffer from indigestion. The same rules should govern the application of the child to the breast at night as during the day. Regular habits are thus soon acquired, which are attended with immense gain to the comfort of the mother and to the health of the infant.

Neither in the day nor at night, should the child be awakened from its sleep, under pretence that its hour for feeding has arrived. When suddenly awoke from a state of sound repose, it feels no immediate desire for the breast, and what is taken seldom digests well, but incommodates seriously the stomach. While an infant sleeps quietly, there is never any danger of its suffering from hunger. It will awake whenever nature craves a fresh supply of food; and when it has been accustomed to take the breast at tolerably regular periods, its awaking will correspond very nearly with those periods. It may therefore be established as a general rule, that a child should never be disturbed in order to give it suck: but let it become fully awake of itself, and if it then exhibit a desire to suck, it will be proper to put it to the breast.

It is a common opinion among nurses, that when a child rejects without much effort a portion of the milk it has just sucked, it is a sign of health. The breast is immediately presented to it again; and it is coaxed to suck until this rejection no longer takes place. The opinion

here referred to is altogether an error; and the practice founded on it, and the false security to which it leads, are highly pernicious. So far from being a sign of health, the rejection of the milk either indicates that the child has taken too much, or that the stomach is labouring under irritation; and instead of the breast being again presented, some time should be allowed to elapse until the stomach recovers its strength, and its powers of digestion return to their ordinary condition.

How soon ought other food to be given to an infant, in addition to that supplied to it from the mother's breast? So long as there is a plentiful supply of the latter, and the infant continues to thrive well, no other will be required—we might almost venture the assertion that any other will be injurious. There is, as it were, a wonderful link or connection subsisting between the mother and infant. For as in the first place the milk is thin, so does it increase in amount and in richness as the child advances in age and gains strength. This is a proof that nature intended this fluid for its sole nourishment so long as the teeth have not made their appearance: hence, when there is no obstacle to oppose it, no other should be given it for the first five or six months at least.

After this period, however, if the child be perfectly healthy, it may be prudent to give it, once a day, a meal of other food, to prepare its stomach for the change of diet which must ultimately

take place at the time of weaning. A milk diet should be given at first. A little arrow root boiled in milk answers very well, it being both simple and easy of digestion. Should it be found to agree perfectly with the stomach, it may be persevered in for a short time ; then, as the digestive powers of the child increase, it may be replaced by a pap, made of French roll, or grated biscuit, or cracker boiled in water till it is reduced to a pulpy consistence; it should then be worked through a fine sieve, and mixed thoroughly with a little warm milk sweetened with loaf sugar. Whatever food be made choice of, the child should always be allowed to suck it through a bottle ; in this manner it will be less liable to take it at improper times or to nave its stomach overloaded, than when it is forced down its throat spoonful after spoonful, as is too commonly the case ; and what is of equal importance, the glands of the mouth, being stimulated by the act of sucking, will pour out a proper supply of saliva, which, mixing with the food in the act of swallowing, will materially assist its perfect digestion. In preparing the food of infants, it is important that the milk be perfectly pure, that it be not skimmed, nor mixed with water. If possible it should always be drawn from the same cow, and used, particularly in warm weather, while it is still fresh. The least tendency to sourness in the milk given to children produces injury to their stomach and bowels—an attempt to conceal the

sourness of the milk by an additional quantity of sugar merely increases the mischief. As pap made in the manner directed is liable very quickly to become stale and sour, it is important that it be prepared only a short time before it is used. Letting the pap stand on the top of a stove, or heating it anew by the fire every time it is given to the child, is improper; in either case the bland, nutritive properties of the food are to a certain extent impaired.

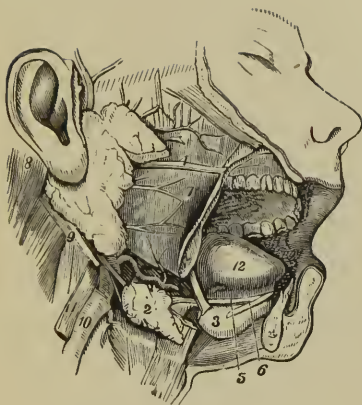
When an infant has cut its four first teeth, if there be nothing in relation to the health of the child to prevent it, it may be weaned. That is, when the child is from eight to ten months of age, provided it is healthy and robust, it will, as a general rule, be advisable to take it entirely from the breast; its stomach will by that time have acquired sufficient strength to digest more solid food. If the child be forward in cutting its teeth, it may be allowed, after the seventh or eighth month, once a day, a little plain chicken or mutton broth, or, what is preferable, simple beef tea, alternately with a moderate quantity of light rice or sago pudding. But when dentition proves laborious and tedious, the period of suckling should continue for a year. It should always be recollected that while too early weaning will endanger the health of the child by causing irritation of its stomach and bowels; a too long continuance at the breast is likewise attended with injurious effects. The quality of the mother's milk dege-

nerates, and is no longer fitting for nourishment; independent of which, as the child advances in age, it requires a more substantial diet.

The infant should not be taken from the breast all at once: in gradually weaning it, by accustoming it by degrees to other nourishment, there is less danger of any inconvenience to either child or mother. Beware, whilst weaning an infant, of giving it too much food. This is a very common and a very dangerous error. The proper time for weaning an infant is during those seasons of the year when the air is moderate in temperature, dry, and least subject to sudden changes; the heat of summer in this climate should be especially avoided.

In concluding our observations upon the subject of Nursing, we must be allowed to offer one word of caution on the administration of opiates, carminatives, cordials, castor oil, and other medicines to an infant at the breast. When not loudly called for by the actual presence of disease, they invariably do harm, and are often the cause of the various accidents which children so often suffer, and by which so many of them are annually destroyed. By proper nursing, the necessity of administering any kind of medicine to a child at the breast may almost always be obviated. The fretfulness, crying, and want of sleep, to remedy which the nurse so inconsiderately flies to the use of laudanum or paregoric—the griping pains, indicated by the loud screams and contortions of the little sufferer—the irrita-

bility of stomach, and excessive looseness, by which their strength is so rapidly reduced, to allay which carminatives, anodynes, emetics, purgatives, and the long list of domestic remedies are had recourse to, may in nearly every instance be traced to errors committed in feeding or clothing the child, to its being improperly exposed to cold, or to some imprudence on the part of the mother. They call not for the use, often excessive, of medicines, but for a reform of those deviations from a proper mode of nursing which have been their cause.



THE SALIVARY GLANDS.

- 1, The parotid gland. 2, the sub-maxillary gland. 3, the sub-lingual gland. 4, Steno's duct. 5, Wharton's duct. 6, Bartholin's duct. 7, masseter muscle. 8, mastoid process. 9, digastric muscle. 10, internal jugular vein. 11, external carotid artery. 12, the tongue.

PART THIRD.

**MANAGEMENT AND REARING OF
INFANTS.**

CHAPTER I.

FIRST ATTENTIONS DEMANDED BY THE INFANT.

Susceptibility of infants to the influence of cold—Necessity of keeping them in a warm atmosphere and well clad—Washing a new born infant—Applying spirits to its head improper—Management of the navel string—Burnt rag injurious—Belly band—Practice of squeezing the infant's breasts condemned—Clothing—Necessity of its being soft, loose, and warm—The use of pins to be avoided—The custom of giving molasses and water, or saffron and catnip tea, useless and pernicious—In general no food but the mother's milk required—When other food may be necessary—What is the best—Care to prevent injury to the infant's eyes—Bringing up by hand—Objectionable when it can be avoided—The best plan.

BEFORE we enter upon the consideration of

the cares which the new born infant requires, it will be necessary to advert to the very great susceptibility of the infantile constitution to the influence of cold. The temperature of the bodies of the young of all animals, including man, has been ascertained, by careful and repeated experiments to be actually of a lower grade than that of the bodies of the same animals when full grown; while the former possess, also, to a far less extent the faculty of generating heat. Hence the depressing effects which they experience from exposure to a degree of cold, even less than that which could be borne with perfect impunity by an adult. From these facts we perceive the very great importance of preserving the chamber occupied by a new born infant sufficiently warm during winter—of guarding it from the admission of chilly drafts and strong currents of air—of washing the child in warm water, and protecting its body by sufficient and proper clothing. For the first four or five days subsequent to birth, the room should be kept at a steady temperature of about sixty-five to seventy degrees; and in cold, damp or changeable weather care should be taken to guard the infant for a much longer period from exposure to the external air. Parents and nurses must not trust to their own sensations as a measure of the cold that can be borne by young infants; nor suppose that because no alarming symptoms supervene immediately after imprudent exposure to cold, the constitution

of their offspring or their charge does not suffer. Uneasiness, at first perhaps slight, is, by repetition of the same causes, converted into indisposition, and serious and fatal disease, the slow but constant progress of which is often not even suspected. The foregoing precautions, we are aware, run counter to the prejudices of a large number of nurses and sapient dames, who believe, that, not only by 'early exposure' and a light dress, but by washing the little beings in cold water or actually plunging them soon after birth into a cold bath, their systems will become hardened and invigorated, and rendered less liable to disease. This preposterous and cruel system of hardening, as it is termed, is in fact nothing else than an experiment to see how much an infant can bear without being injured or destroyed. It is true, the children who survive the ordeal will be found the hardiest in after life and perhaps little subject to disease: the very fact of their surviving the process of hardening is a full proof of the uncommon vigour of their constitution. But the number of the feeble who sink under it should be sufficient to deter all parents from its adoption.

The first care which the new born infant requires is the cleansing of its body. This is best effected by washing it, with a soft sponge or rag, in warm water, in which is dissolved a little fine soap; the water should neither be cold for reasons already specified, nor yet should it be too warm lest the delicate and susceptible skin of

the child be too greatly irritated. As soon as the ablution is properly accomplished, the body should be wiped perfectly dry by gentle friction before the fire, avoiding with the greatest care any exposure to cold. The nurse should not be over anxious, at the first washing, to remove every particle of the slimy matter with which the child is covered at birth: by too much rubbing for that purpose, the skin becomes irritated and inflamed, and at the second washing the surface of the body can be thoroughly freed from what remains. Its entire removal, as soon as it can conveniently be effected, is, however, important—if it remains too long it may give rise to irritations, soreness and eruptions of the skin. Many nurses never wash the head of an infant, excepting with distilled spirits; or at least, after washing with water, rub with a portion of the latter. The head should unquestionably be washed as frequently and as thoroughly as any other part of the body; but the practice of rubbing it with spirits is decidedly injurious: so far from preventing the child taking cold, it has a directly contrary tendency—its rapid evaporation reducing suddenly the temperature of the part to which it is applied. Independent of which, by the irritation which it produces, it is very apt to cause eruptions, blotches, and sores of the scalp and surrounding skin.

As soon as the child is washed and properly dried, the navel string should be wrapped in a soft rag smoothly folded: this is to be kept in

its place by a bandage or belly band, consisting of a single fold of soft flannel cut bias, rolled round the child. Care must be taken that this bandage is not too tightly applied, and that it is of sufficient elasticity to yield readily as the stomach of the infant rises and falls in the act of respiration. The belly band should be worn for the first three or four months, until which time the navel requires its support to prevent its bulging by the pressure of the intestines against it. Nurses are in the habit of applying upon the navel a burnt rag either at the first or subsequent dressing. This is very objectionable; in no case is a burnt rag of any use, while it frequently produces inflammation and a sore which heals with difficulty. Should any soreness remain after the navel string drops off, as it generally does in a few days, the part should be dressed daily with a soft rag or a pledget of lint spread with spermaceti or simple cerate, until the sore is entirely healed.

Occasionally the breasts of a new born infant are considerably swollen, and very often at the same time very tender, and more or less red. They are in fact in a state approaching to inflammation. In such cases all that is required is to anoint the parts with a little sweet oil, and to keep them free from pressure. But ignorant nurses, under the supposition that the fluid which the breasts contain must be pressed out or dangerous consequences will ensue, are very commonly in the habit of squeezing, rubbing and

kneading them, and then bathing them repeatedly with laudanum and spirits. This barbarous practice, independently of the pain it gives to the child, often occasions violent inflammation, terminating in a gathering, under the effects of which the little sufferer not unfrequently sinks. The practice cannot be too severely reprobated.

The clothes in which the child is enveloped, should be made full and loose, and be composed, in winter and during cold changeable weather, of the softest flannel, and of warm cotton in summer and the milder seasons of the year. The practice of swaddling the infant in tight bandages is now happily banished from the nursery, with many other absurdities. The clothes should always be made to tie with tapes, and as few pins used as possible. As soon as the child is dressed, it should be laid upon the bed, its face being left uncovered; and it generally falls into a gentle sleep which lasts until the mother is sufficiently rested to apply it to the breast. Few nurses feel inclined, however, to lay the little stranger out of their hands until they have forced down its throat a spoonful of molasses and water followed perhaps by a portion of saffron or catnip tea, under the pretext that these are requisite in order to clear out the bowels and remove 'the phlegm from the stomach of the babe.' If the administration of these notions were a matter of indifference, we might pass them by with a smile at the folly by which it is prompted; but, on the contrary, they are productive often

of very bad effects—irritating the susceptible stomach and bowels of the infant, and in this manner causing vomiting, colicky pains and other inconveniences. Seldom, if ever, is any thing required to induce an evacuation from the bowels of a new born infant, or to discharge the phlegm which is accumulated in its throat: nature, and the first milk which it derives from the mother's breast, will do this more effectually than all the nostrums of the nurse, and without occasioning the least inconvenience to the child.

We have already insisted upon the propriety of an early application of the child to the breast. But some hours often elapse before the secretion of milk occurs; and the fears of the fond mother lest her infant suffer from want of food, and the prejudices of the nurse leading her to suppose, that the cries of the new born babe can be quieted only by giving to it a quantity of cow's milk, pap or other nourishment, its delicate stomach is most generally crammed with these articles—which, as the child is unable to digest them, cause it a sensation of uneasiness which prevents it from sleeping, and prolongs its cries; the nurse, however, believing all this to be the effect of hunger, increases its torment by a repetition of the unnecessary food. Now, instead of feeding the child after it is dressed, we would advise, in all cases, that it be placed in the bed, warmly wrapped in soft flannel; when it will soon recruit its strength by sleep. If however the secretion of the mother's milk

does not take place for a day or two, it will then be requisite to give to the child some other nourishment, which should always be as nearly as possible similar in its properties to the food intended for it by nature. A little new milk warmed, with the addition of about one-third water, and sweetened with loaf sugar, given in small quantities, will be all-sufficient for the support of the child, until it can be applied to the maternal breast; and the moment this yields a sufficient supply of milk, all other food should be at once discontinued.

The parent and nurse should constantly keep in mind the fact of the very great tenderness of the eyes of new born infants. The utmost care should be taken to guard them from exposure to a strong light—to prevent the soapy water used in washing them from penetrating within the eye lids—to guard them from exposure to cold, and to be cautious that the air of the chamber is not contaminated with smoke or any thing of an irritating kind. To neglect these precautions is to endanger soreness or violent inflammation of the eyes, blindness and sometimes convulsions.

A word or two may be necessary on bringing up children, as it is termed, by the hand. Circumstances do sometimes occur, when the mother is necessarily deprived of the means of giving suck to her infant, and has it not in her power to commit it to a proper wet nurse. In these cases the experiment of artificial feeding

must be resorted to. Let us observe that the chances against the child's being raised, and the danger of its suffering in its health and constitution, are so great, that whenever the breast milk of a healthy nurse can possibly be obtained, artificial feeding should never be resorted to.

When a child is to be reared without the breast, its first nourishment should be simply fresh milk obtained from a healthy animal, diluted with water and sweetened with loaf sugar. It may be proper for several weeks to boil the milk and remove the pellicle which forms on its surface. Though in this manner a portion of its nutritive qualities will be lost, yet as the pellicle which is removed contains the solid part of the milk, the residue will be rendered lighter and more easy of digestion. We have already adverted to the advantages which the sucking bottle possesses over the method of feeding by means of a spoon. This is more particularly applicable to the present case: it being necessary to guard with care against forcing food upon the child when its stomach does not require it—and of obliging it to swallow an excessive quantity. The nourishment should therefore be given at first sparingly, and repeated at short intervals when the cravings of the child indicate the want of it. If the infant thrive well on this diet, it should not on any account be changed until it has attained the age of four or five weeks, when it may be advisable to give it once a day a little arrow root boiled in milk: at

the same time the milk should be less diluted with water, as, the powers of the stomach being stronger, it will be found better able to digest it. If the arrow root does not agree with the child, a little milk gruel may be substituted. This kind of food should be persisted in for two months or ten weeks longer. The next addition to the milk diet should be a pap made of French roll or grated biscuit prepared in the manner pointed out in a former part of the chapter, and sucked through the bottle. This is the only variation which it is in general prudent to allow, until the child has attained the age of five or six months, at which time no objection can be made to giving it cautiously once a day a little weak beef tea, or plain chicken' soup, with the pap as before. This regimen should be continued until the child has attained the age of twelve months—when, if it be strong and its teething sufficiently advanced, it may be allowed, twice or thrice a week, the lean part of a mutton chop or similar plain wholesome animal food, minced very fine, and mixed with crumbs of bread; on the intervening days a light custard, or plain weak broth may be given.

CHAPTER II.

SLEEP OF INFANTS.

*The younger the child the more sleep it requires—
Disposition to sleep beneficial and not to be disturbed—
Wakefulness in infants the effect generally of bad
nursing—Sleep not to be produced by anodynes—
Cradles—Some of the disadvantages attending them—
Cots—Not to be surrounded by curtains—Position of
the cradle or cot—Position of the child while sleeping—
Infants should not be suddenly roused from sleep—
Nor exposed at once to a strong light—Materials of the
bedding.*

IT is well known that during the first period of its existence an infant passes the greater part of its time in sleep. This tendency to repose is a wise provision of nature, which should not be

interfered with. Sleep to an infant is equally important as sufficient and proper nourishment, in promoting the growth and development of the system. It abstracts it for a time from the influence of those agents, the continued action of which would irritate painfully its nerves and interfere with the regular and perfect performance of the functions of its various organs; it facilitates the process of digestion, promotes a gentle and uniform circulation of the blood, and the abundant and equal nourishment of every part of the body.

The younger the child, the more does it stand in need of repose; and we may rest assured, that whenever an infant is wakeful for many hours during the day or night, it will be found either that it suffers from too much or improper food—tight clothing, or from some uneasy sensation produced by other causes. As the infant, however, grows older, and its senses are more strongly excited by external objects, its sleep is less continued, occurring only when its organs, fatigued by the exercise to which they have been subjected, require to have their energies renewed by repose. It sleeps now less during the day, while at night its repose is seldom broken. When six months old, it may be accustomed by proper management to require sleep only at regular periods, and soon afterwards during the night alone. So soon as this can with propriety be effected, it is of advantage to both child and mother. The sleep of the child, to whatever

period it is confined, should, let it be recollected, be the result always of the natural tendency to repose, promoted by proper nursing, and never either by day or night should it be produced by the administration of anodynes. The nurse who, to gain time for other occupations, or to prevent her own repose from being disturbed by the wakefulness of the child during the night, causes it to sleep by the administration of stupefying drugs, runs the risk of promoting her own ease and comfort at the expense of the health and life of the infant.

The bed in which a young infant is put to sleep should be soft, and well adapted to preserve its little body from the slightest impression of cold—its face should never be covered, nor so buried in the clothes as to impede in the least degree the freedom of its breathing. During the first weeks after birth, the bosom of the mother, or the lap of the nurse, would appear to be the best situation for the infant while reposing; subsequently, however, it may be accustomed by night as well as by day to sleep in a cradle or cot. The motion of the cradle has, it is true, been strongly objected to by some physicians as decidedly injurious. Rocking would appear, however, to be more pleasing to young children than a state of quiescence; and when gentle and not resorted to at improper periods can be productive of no possible injury—violent rocking, by the sudden and repeated jolts which

it communicates to the tender system of an infant is unquestionably injurious, and should be carefully avoided. There is one disadvantage, however, arising from the use of a cradle, and that is, children get so habituated to its motion that they can rarely be put to sleep without it; and they require, in consequence, an almost constant attendance; they awake, the moment the motion to which they have been accustomed is suspended, and continue to cry until rocked to sleep again; whereas children accustomed to sleep in a cot, will remain comfortable and quiet for hours after they have awaked. Cradles too are apt to be abused by nurses, who, consulting their own convenience, will prefer rocking an infant to sleep to the trouble of attending on it whilst awake. The cot has unquestionably many advantages over the cradle, but with proper precautions either may be adopted, according to the taste or convenience of parents. The part of the room in which the cradle or couch of an infant is placed, is a subject of some importance. It should invariably be such, as will, while it screens the eyes from a dazzling or unequal light, prevent the latter from falling upon them sideways, or very obliquely. When the light which enters the room is moderate, and of a mellow character, the face of the child should be directly in front of it; but when intense and dazzling, it is better to place the child in such a direction as to allow the light to fall on the back part of its head, or upon the

back of the cradle or cot. When, in the evening, a lamp or candle, or an open fire, is burning in the room, the same precaution should be observed. As an infant, the moment it wakes, almost instinctively directs its eyes towards the light, unless this be uniformly diffused throughout the apartment, or be placed in a direct line with its eyes, it is in danger, from the habit of viewing it sideways, of acquiring a permanent obliquity of vision. This is more particularly liable to take place, and the consequent deformity is much greater, when, from the head being sunk in the pillow, or enveloped in a cap which has a projecting border, the light can be viewed only with the eye which is the furthest from it.

It may seem at the first view to be a matter of perfect indifference in what position an infant is laid upon its sleeping couch—it is nevertheless of some considerable importance. If an infant be laid upon its back, the fluids which are abundantly secreted by the mouth are in danger of flowing into the windpipe and thus impeding respiration, or giving rise to a violent and almost spasmodic cough; all of which may be avoided by the child being laid upon its side. It is important, also, that it should not be laid always on the same side, as, by so doing, permanent deformity is often occasioned, from the circulation in the limbs upon which the infant constantly rests being partially impeded, and their proper growth consequently prevented. The precau

tion should therefore be taken to lay the child to sleep alternately on different sides.

It is extremely injurious to awaken a child out of its sleep suddenly or by any loud noise. The shock which is in this manner inflicted on its delicate system may give rise to an attack of convulsions, or produce other and equally dangerous effects. To prevent young children starting from their sleep in fright at every slight noise which occurs in their vicinity, no particular pains should be taken to maintain perfect silence when they are about to fall asleep, nor during their repose. If accustomed to the ordinary sounds of the nursery, they will fall readily asleep amidst them; and all danger of their being suddenly awakened or unnecessarily disturbed is removed.

Neither should children, immediately on waking, be exposed to a bright light or dazzling wall, as the powerful impression thus made upon the eyes, after they have been for some time concealed from the light will endanger their inflammation, or impair, nay even destroy the sight completely.

The cots occupied by children should always be without curtains—these prevent the proper circulation of the air, which soon becomes contaminated by their breathing, and the system of an infant suffers ever more than that of adults by exposure to a confined and impure atmosphere. For the same reason, the very common practice of suspending a cloth over the front of

the cradle during the sleep of an infant is extremely reprehensible.

Every thing which is calculated to insure the wholesomeness of the air to which children are exposed, as well during their sleeping as their waking hours, is a matter of serious importance, as contributing essentially to their health and comfort. Hence, the nursery should, if possible, be high, airy, well ventilated, and perfectly free from damp. The beds best adapted for children, at least in summer, are mattresses of straw or horse-hair. These are always more favourable to the perfect growth of the body than beds made of feathers. The latter, independent of endangering distortions of the spine by yielding unequally to the pressure of the body, contract and retain more readily impurities; and in summer, by creating about the person too great a degree of warmth, cause a very considerable degree of relaxation and debility. Children should be accustomed from a very tender age to retire to bed early in the evening, and rise the moment they awake after daylight. Habits are thus formed of the utmost importance to their health throughout life.

CHAPTER III.

CLEANLINESS AND DRESS OF INFANTS.

Bad effects produced by the neglect of cleanliness—Daily ablutions of the whole surface necessary, with frequent changes of clothing—The warm bath—Its beneficial effects—Cold bathing pernicious—Cleanliness of the heads of children—Keeping the hair short—Its importance—Brushing the hair preferable to frequently combing it—Necessity of flannel or of thick cotton garments—Clothing when too long injurious—Dress should cover the arms, shoulders, and breast—Injury from leaving these parts bare—Importance of a dress sufficiently loose—Head dress of an infant—Socks—Shoes.

FEW things are of more importance in preserving the health and contributing to the comfort

of an infant than perfect cleanliness. The perspiration always copious in infants, and the other discharges from their bodies, if the utmost care be not taken to keep their persons and clothing scrupulously clean, cause the surface to be quickly covered with a layer of acrid matter. By this, independent of the disagreeable odour which it exhales, the important functions of the skin are impeded, eruptions are produced, the child is rendered peevish and uneasy, and the health of its system, generally, is impaired. Hence the importance of repeated ablutions of the whole surface of infants, and frequent changes of clothing. In washing an infant, the water used should be warm, with a little pure castile soap dissolved in it. No unnecessary time should be taken up in the process; and the child should be clothed, the moment it is completed and the skin perfectly dried by gentle friction with a soft cloth. The same attention should be paid to the cleanliness of its dress: as soon as any part of it becomes soiled or wet, it should be changed, and never ought any article to be put on the child again until after it has been thoroughly washed, dried and aired.

It must not be supposed that a partial or slight washing of an infant's body will be sufficient to keep its skin in that condition which is required for the perfect maintenance of its health. To effect this nothing but frequent bathing of the whole body ought to be depended on. Infants should be bathed regularly every day in tepid

water, and this practice should be continued throughout the year until they are two or three years of age, when two or three times a week will be sufficient. The benefit derived from the bath is not confined merely to its cleansing effectually the entire surface of the body; but by its causing an equable and free circulation of the fluids and the regular performance of the functions of the skin, the proper growth of the body, and the general health as well as comfort of the little being, are essentially promoted. A warm bath, therefore, should be esteemed an essential article of the nursery. The water used in it should be perfectly soft and pure, and heated to from eighty to about ninety degrees of Fahrenheit's thermometer: the latter temperature being that adapted for young and feeble children and for the season of cold, the former for the older and more robust children, and for the summer season. Absurd prejudices exist with many against the use of the warm bath, from the supposition of its relaxing effects, and its laying the system more open to the influence of slight degrees of cold. These suppositions are entirely groundless: the system is sensibly invigorated by the warm bath, and it is rendered even less liable to take cold, than when such a bath has not been used. The plan which at one period was practised and still is advocated by a few, of plunging a young and delicate infant into cold water, under the pretence of hardening it, is one of the most pernicious that ever arose out

of theories founded in despite of experience and the plainest dictates of nature, as manifested by our own sensations. We have already adverted to the very great susceptibility of infants to the morbid effects of cold : to immerse their naked bodies in a cold bath is perfect cruelty, if it deserve not a harsher appellation.

Whilst in the warm bath, the body of the child should be gently rubbed with the hand or with a soft sponge ; and when taken out of it, attention should be paid to drying it perfectly previous to putting on its clothes, which ought to be clean, well aired, and ready at hand. For the first two or three months a few minutes' continuance in the bath will be sufficient; the time may be increased as the child grows older to a quarter of an hour, and after a year even to a longer period.

The same care should be paid to keeping an infant's head clean as the rest of its body. If frequently washing the head with warm water and soap, and, when the hair has appeared, the repeated use of a soft brush be not resorted to; the greasy and adhesive exudation which takes place from this part, becoming dry, causes a black crust to form, underneath which, to say nothing of its disgusting appearance, sores often occur, painful to the child and difficult to be healed. The absurd notion, that frequently washing a child's head will endanger its taking cold, can be entertained only by the most ignorant and credulous mothers. Let our readers be assured that all the

danger is, in not keeping their infants' heads sufficiently clean.

In connection with this subject we have a few words to say on the management of the hair of children. This should always be kept short: their health as well as their beauty is prejudiced by a contrary practice. Nothing is more common than to see a luxuriant head of hair accompanied in children with paleness of complexion, weak eyes and frequent complaints of headach. The cooler the heads of children are preserved the better—by this we guard against many of the affections to which the brain is peculiarly liable in early life, terminating often in incurable dropsy of that organ. There is good reason for believing that when the head is loaded with a profuse growth of hair, eruptions and sores of the scalp are much more apt to occur, than when the hair is kept thin. The trouble, also, of keeping a thick head of hair sufficiently clean, and the time necessary for this purpose, are additional arguments in favour of cutting the hair of children short until they are eight or nine years old, after which in girls its unrestrained growth may be permitted. Repeatedly cutting the hair will have no tendency to render it coarse and inelegant, provided it be frequently washed and brushed. The heads of young children may also be preserved sufficiently clean in this way, without the use of a fine comb, which is apt to scratch and wound the skin, or by unduly irritating it to augment the formation

of the scurf, to remove which is one of the reasons of its being often resorted to. If any dirt appears on a child's head, which a brush and the usual daily ablution will not remove, which can scarcely ever be the case, that particular part should be rubbed with a towel wet with soap and water; perfect cleanliness can thus be always maintained.

In the clothing of infants ease and sufficient warmth are the two principal objects to be kept in view. Soft flannel in winter, and during the early period of spring and the latter part of autumn, and in summer thick cotton, are indispensable materials for the clothing of infants in this climate. They cannot be dispensed with as the materials of the inner garments, of whatever stuff the exterior dress may be composed: for it is to be recollected, that not only is it requisite for the health of young children that their bodies be kept sufficiently warm, but also as nearly as possible of an *equal* warmth, which can be effected only by clothing them in substances which, like those of wool and cotton, are bad conductors of heat. Hence also the amount of clothing should be less at night when they are covered up in bed than in the day, and lighter during the warm than in the colder seasons of the year. No part of an infant's dress should hang down more than two or three inches below the feet—the absurd practice of long dresses folded up over the feet, is injurious: it cramps the motions of the lower limbs and

encumbers the feet; in consequence of which, weakness and deformity of these parts is endangered. Leaving the whole of the arms, breast, and shoulders of an infant bare, is one of those pernicious freaks of fashion by which alike the comfort and the health of its little victim are destroyed. Laying thus open to the influence of cold the parts upon which its impression the most readily produces disease, we need not wonder that so many children are annually swept off by croup, and catarrhal fevers, or grow up with a tendency to scrofula and consumption, which is produced by the slightest subsequent exposure or imprudence. On the other hand, however, the dress of children ought not to be too warm, nor should they, even in cold weather, be too much muffled up about the throat and head. The dress of an infant should be perfectly loose—subjecting none of the limbs to the least constraint—no part to the least degree of pressure. A light dress, which allows entire freedom to the functions of life and action, is the only one adapted to permit perfect, unobstructed growth—the young fibres, when unconstrained by obstacles imposed by art, will shoot forth harmoniously in the form and to the extent which nature intends. The garments of children should in every respect be perfectly easy, so as not to impede the freedom of their movements, by bands or ligatures upon the chest, the loins, the legs or arms. With such liberty the muscles of the trunk and limbs will gradually assume the fine

well and development, which nothing short of unconstrained exercise can ever produce. The body will turn easily and gracefully upon its firmly poised base; the chest will rise in noble and healthy expanse; and the whole figure will assume that perfectness of form, with which beauty, usefulness, and health are so intimately connected. Independently of injuring its growth and endangering a deformity of its limbs and body, a tight and cumbrous dress sensibly diminishes the comforts and enjoyments of a child. Every attentive observer must have had opportunities of witnessing the pleasure experienced by the little innocents when undressed and permitted to roll about free and unshackled. The necks of infants seldom escape some ligature, in the form of cap strings, beads, chain or necklace, by which the freedom of breathing is often interfered with, and the free passage of blood to and from the head impeded. Bracelets and ribbons about their arms and wrists, gloves tied above their elbows, and garters upon their legs obstruct the circulation and proper growth of the upper and lower extremities, while belts tightly tied or pinned about their waists produce injury to the lungs, the stomach, and the liver. Let all these pernicious parts of dress be abandoned—let the dictates of reason point out the proper dress for a child, rather than the ridiculous whims of fashion.

A thin, light and soft cap is the only covering required for the head of an infant, from the

period of birth until the growth of its hair is sufficient to render unnecessary artificial protection of any kind. It is all important that the material of which the cap is formed be soft and perfectly smooth. A lace or embroidered cap may be very beautiful, and well adapted to gratify the parent's pride of dress, but nevertheless it is an improper covering for an infant's head. The roughness and harshness of its surface is calculated to fret and irritate the delicate skin with which it is in contact, and if not productive of eruptions and sores, cannot fail to occasion some degree of pain or uneasiness to the wearer. The cap should never be allowed to cover or confine the ears; otherwise, by keeping the latter unnecessarily warm, and improperly pressing them against the sides of the head, it is apt to occasion pains and inflammation of these organs, or a disgusting, sometimes dangerous soreness and running behind the ears. As soon as the head has become well covered with hair, the cap may be dispensed with during the night as well as day; but when the child is taken out, a very light and easy hat may be worn.

Soft cotton or woollen socks will keep the feet comfortably warm, and they should be early worn, taking care, however, that they are sufficiently large to allow the utmost freedom of motion to the foot, and renewed the moment they become wet or soiled.

Very little alteration need be made in the dress

of infants for five or six years, except that of shortening their clothes when they begin to walk, and supplying them then with easy shoes, adapted to the natural shape of the foot, without heels, and neither too large which would cause them to acquire an unsteady and shuffling gait, nor too small so as to cramp the motion of the feet, give present pain, and prepare them for greater sufferings or even permanent deformity. Whatever changes, however, are made in the fashion of a child's clothing now or at any other period, it is important that the great requisites in dress be kept constantly in mind: a sufficient degree of warmth, sufficient lightness, and a shape and size which will leave every limb, muscle and portion of the system without restraint.

CHAPTER IV.

DIET OF CHILDREN SUBSEQUENT TO
WEANING.

Heating and stimulating food and drinks improper—Vegetables, and bread, with milk, the best diet for children—Number of meals—Butter—The most wholesome vegetables—Pastry to be avoided—Drinks of children—Regulation of meals—Proper period for breakfast and supper—Variety of food injurious—Eating between meals condemned—Rest after meals—Dislikes not to be encouraged—Fruit.

DURING the early stages of life, all heating and stimulating food and drinks should be strictly forbidden, as they tend more certainly to produce disease in the readily excited system during childhood, than perhaps at any other period of life. Vegetables should, in fact, con-

stitute the principal diet of children ; especially the farinaceous substances, such as bread, rice, arrow root, potatoes and the like. To these may be joined milk, soft boiled eggs, and a very moderate allowance of plain and simply cooked animal food. Children have, in general, very excellent appetites, and a sufficiency of nourishing food is absolutely necessary, not merely to renew the waste of their systems, but, also, to supply materials for their daily growth. Three or perhaps four very light meals a day will be found a good allowance during childhood. At one of these, the dinner, or mid-day meal, animal food may be allowed—but in moderation. For the others, bread, or potatoes and milk, various preparations of rice, or rice and milk—plain bread pudding or custard, will form a proper and wholesome diet. All rich, salted and high seasoned food should be forbidden. Some have objected to butter for children; experience, however, would seem to show that a very moderate allowance of fresh butter is by no means injurious. Of vegetables, potatoes, carrots, turnips, beets and cauliflowers will be found the least objectionable—they should be well boiled, and the potatoes and turnips eaten without being mashed, or mixed with butter or fat gravy. Children should never be indulged in pastry of any kind—they may occasionally take a little of the cooked fruit of a pie, but even this should be in moderation.

The drink of children should be simply

water, milk, milk and water, whey, or very weak tea, milk and sugar. All stimulating liquors whether distilled or fermented, are not only unnecessary, but positively injurious. By increasing to an improper extent the circulation of the blood, they induce fever, indigestion, inflammation or convulsions; to say nothing of the danger of their use, however moderate, during childhood, giving rise to habits of intemperance in after life.

The period of the meals should be strictly regulated, and in such a manner that the intervals between them are not so great as to permit the child to experience for any time a sensation of hunger, nor so short as to interfere with the digestion of that previously taken. Children should breakfast as soon after they have risen, and been properly washed and dressed, as possible. Their stomachs are then empty and their appetites keen. If food be too long withheld, the craving for it becomes either too importunate, or the appetite fails; either of which would be injurious. Supper should always be taken an hour or two before bed-time. As little variety of food as possible should be set before children, since every additional article becomes a new incentive to appetite. They should never be indulged with a second course. If they come to their meals with an appetite, they will always satisfy it by eating freely of the first article presented to them; all the rest are superfluous, and therefore injurious. If the appetite is trifling,

the less they eat at the time the better: by taking but little, the appetite will more certainly return at the next meal. But should this instinct of nature for an observance of moderation be neglected, or be attempted to be overcome by variety; repletion, with all its evils, will follow. Instead of a renewed and healthy appetite following, it will be found diminished, and most probably attended with headach, fever, oppression or even vomiting. Children should not be allowed to eat frequently of bread, bread and butter, bread and molasses, cakes or fruit, between meals; this will either destroy the regular appetite, or induce them to eat too much. In the first case, the stomach will be interrupted in its regular routine of function—consequently, the appetite will become either irregular or capricious: in the second case, all the evils attendant upon an over distension of the stomach must follow. Children are to be restrained from any violent exercise immediately after their meals: if not kept in a state of perfect rest, they should at least be prevented from engaging in any pastime which requires considerable bodily exertion. Children should be early taught the importance of eating slowly, and chewing their food well: on this account alone, the habit of resting after a meal is of importance, as it prevents them from swallowing their meals hastily, in order that they may return more quickly to their play.

In regulating the diet of children care should

be taken not to force any particular article upon them, after it is found by a fair trial not to agree with their stomachs. The contrary practice is both cruel and injudicious. At the same time, however, great care must be taken that permanent dislikes are not formed at this period of life against certain wholesome articles of food. Children should never be suffered to eat alone, unless the proper amount of food be meted out to them—otherwise they will almost always eat too much. If a child demand more than is judged proper for it, its importunities should always be resisted with firmness; or it will too certainly acquire habits of gluttony. Children are in general fond of fruit; and of that which is in season, and which is perfectly ripe and sound, they may be allowed to partake moderately, either in its raw state or when cooked. Excess in the use of fruit, and eating that which is unripe, is always productive of serious injury to children.

CHAPTER V.

EXERCISE OF INFANTS.

At first mostly passive—Rocking in a cradle—When improper—Carrying an infant in the arms—Important precautions—Tossing an infant up and down improper—Teaching it to walk—How soon proper—Early attempts injurious—Bad effects resulting from artificial supports to its body—Importance of pure fresh air—The nursery—Frequent exposure to the open air—Removing children to the country in summer—Riding—Sailing.

A PROPER attention to exercise is not less important during the period of infancy, than in after life. Upon it depends, in no trifling degree, the health of the little being, as well as the proper development and freedom from deformity of every part of its body. An infant is,

however, from the very state of its organization, unfitted for any very active exercise. Its bones and muscles are as yet incapable of sustaining the weight of the body; and of course nearly all the exercise it can enjoy is that which is communicated to it by its mother or nurse. The earliest species of exercise to which children are submitted, is that of rocking in the cradle. As we stated in a former chapter, the gentle rocking of an infant is not objectionable; but under opposite circumstances it is always productive of more or less injury. It is especially so when resorted to immediately after the child is taken from the breast, or for the purpose of composing it to sleep when restless or fretful. The best exercise for a young infant is obtained by allowing it to amuse itself upon the nurse's lap or on its cot, and by carrying it frequently about in the arms. When sufficiently old to be attracted by surrounding objects, taking it frequently into the open air, especially in the country, during the milder seasons of the year, has a highly beneficial tendency. The freshness, beauty and variety of the scenes of nature are highly attractive even at a very early period; and the impressions resulting from them are always of a salutary kind. In carrying an infant, some important precautions are necessary. The back bone is at this period almost entirely composed of a soft yielding substance, that is incapable of supporting the weight of the head and other parts which rest upon it, in the erect

position of the body. To prevent deformity, therefore, a young child should not be held in a sitting posture upon the arm of the nurse; it ought always to be carried in the arms in a half lying position, so that the head, and every part which bears upon the spine, may receive a proper support. In delicate infants, a permanent deformity, from the twisting of the body to one or other side, has frequently been caused, by their being carried for too long a time in the nurse's arms without changing the position in which they are held. To obviate this, the child should be carried, by turns, on both arms. It is very common to toss a child up and down in the arms, held at full length from the body. The motion thus communicated is of too violent a kind to be borne with impunity in the early periods of infancy, to say nothing of the serious accidents which may result from it, even when the utmost care is observed.

As soon as a child is able to sit alone, placing it upon a carpet or soft cushion spread upon the floor, and allowing it to amuse itself with its toys, is far preferable to constantly nursing it in the arms, or allowing it to be rocked for hours in a cradle.

It is only towards the end of the ninth month, and frequently even later, that it is proper to teach a child the use of its feet. As a general rule, no particular attempt should be made to induce it to walk at an early period: the bones not having acquired a sufficient degree of solidity

to support the body, every effort to place the child upon its feet is calculated to produce considerable and permanent deformity; and so far from promoting, to retard the growth of the body. In teaching a child to walk, it should be left entirely to its own efforts; all artificial support is injurious. As generally applied, such support has a tendency to produce an unnatural elevation of the shoulders, while the infant, depending upon it almost alone for maintaining the upright position of its body, is accustomed to bend too much forward, or to one side. By this may be laid the foundation of a permanent deformity, or at least of an ungraceful gait, which it is often impossible, in after life, to correct. All that need be done to induce a child to walk at the proper period, is to place it upon a carpeted floor, and to present to it at a little distance some attractive object: the desire of obtaining this will overcome the fear of falling, which is experienced in first attempting to walk alone; and in a very short period the tottering and uncertain step which is then exhibited, will give way to a firm, confident and upright carriage. Even after it has learned to walk, a child should not be urged to use its feet for too long a period at a time. The powerful and novel action into which the several muscles are thrown, produces very quickly fatigue, while it is to be recollected that the bones are still easily bent, when they are called upon to sustain the

weight of the body, and the force of the muscles, for any length of time.

Of the immense importance of pure fresh air to children we have already spoken. In a stagnant and contaminated atmosphere it is impossible for them to escape disease, or at least not to acquire that debility of constitution which predisposes them in after life to some of the most serious maladies to which the human frame is liable, diminishing their comfort and usefulness, and consigning them to an early grave. Exposure to a confined, over-heated and impure air, is one of the most common causes of the convulsions, bowel complaints, and fevers, by which so great a number of the children of the poor are annually destroyed. Independently, therefore, of making choice for the nursery of the most spacious room in the house, if possible on the second floor; keeping this room strictly clean, dry, and properly ventilated—in winter of a comfortable and equal warmth, and in summer allowing a free admission of air into it, while the direct rays of the sun are excluded by appropriate blinds or venetian shutters: children the moment they are sufficiently old, should be carried into the open air daily whenever the weather is mild and dry. In summer, one of the most powerful means of preventing the destructive bowel complaint to which children are liable in the southern and middle states, when parents have it not in their power to remove their offspring from the heated and

impure air of the city, to an open, elevated and healthy situation in the country, is to carry them abroad frequently during the cool of the day, in the most open and healthy parts of the neighbourhood; or, when practicable, to convey them frequently, in an open carriage, a short distance into the surrounding country. Sailing on the water for a few hours every day is likewise an efficient means of enabling children to enjoy all the benefits of pure fresh air; and which, in most of our large cities, by the numerous steamboats hourly passing to different situations in their vicinity, is placed within the reach of almost every parent.

CHAPTER VI.

PASSIONS OF INFANCY.

The indulgence of fear, anger or resentment injurious during infancy—Manner in which the passions of infants are displayed—Crying how caused—Not to be encouraged—When violent or repeated, its bad effects—Injurious methods of quieting infants—Stupefying medicines should never be resorted to—Only judicious means for quieting a child—Children seldom fretful when well nursed.

MANY of the passions have, it is true, no existence during infancy, while others may be said to be yet in the bud; nevertheless, even in the cradle, fear, anger, and resentment display themselves, oftentimes to a very great extent, producing present injury to the little beings by whom they are exhibited, and, if not combated

promptly and judiciously, take such deep root as to be with difficulty eradicated, or even controlled in after life. The proper moral education of young children is a subject which does not exactly come within the province of the present work; we have merely alluded to it, for the purpose of making a few observations on the influence which the indulgence of the passions in infancy has upon the health of the child. Crying, screaming, and various motions of the limbs and body, are the means by which the passions of fear and anger are expressed in an infant. Children, it is true, frequently cry from pain or uneasiness; while not unfrequently, particularly at a very early age, their cries would appear to be excited by a kind of instinctive impulse, there being no other cause to which, apparently, they can be attributed. Many authors have indeed conceived it to be improper to prevent, in any case, the crying of infants, unless it proceed from absolute pain or sickness, they believe that, during this period of life, frequent fits of crying are useful, by expanding the chest, developing the lungs, and calling into exercise the muscles of respiration. That, to a certain extent, these effects are produced by the crying of infants, cannot be doubted. But it is not true, that crying is very common in infants during health, and when they are properly nursed; nor that allowing them frequently to indulge in it, has any salutary effects: on the contrary, it is a common observation,

that fretful and peevish children seldom thrive well. When, from any cause; whether improper food or clothing, a confined and impure atmosphere, neglect of cleanliness, pain or passion; an infant is thrown into frequent fits of crying, particularly when these fits are violent and long continued, as is generally the case when they are excited by fear or anger, their effects are often very serious. The undue amount of blood which they cause to be sent to the brain, not unfrequently produces an injury of that organ, laying the foundation for dropsy of the head, or giving rise to convulsions of various kinds. Hence, the importance of guarding an infant from every cause that is capable of exciting these violent paroxysms of crying by a judicious course of nursing; or, when unfortunately they have been excited, of endeavouring quickly to calm them, by walking the infant about, or attracting its attention by some object calculated to amuse it. Two means, however, which are frequently resorted to, to stop the cries of infants, are strongly to be reprobated. The first is, applying it immediately to the breast, or forcing into its stomach with the spoon a quantity of food. This may quiet the child, and even cause it to sleep, but almost always has the effect of overloading its stomach, and of inducing in this manner colicky pains and other mischief. The other means to which we have alluded, is the use of laudanum, paregoric, or other stupefying drugs; when these are frequent

ly repeated, the necessity for their almost constant use and the gradual augmentation of the dose in which they are given, is very soon established; while they never fail to destroy the powers of the stomach, to retard the growth and development of the body, and to induce a general condition of the system altogether adverse to the health and life of the child. Quiet-
ing drops as they are termed, carminatives, cordials or anodynes should, therefore, never be given to an infant during a state of health. The only composing means which art may at any time be allowed to employ, are gentle motion, and the soft and soothing lullaby of the nurse. In children, even at a very early period, a kind of cheerfulness of disposition may be excited by various innocent means; and this probably is the very best manner of avoiding those repeated and violent spells of crying, from which injury is to be anticipated. Infants, when kept free from filth and every cause of uneasiness, when loosely clad, sheltered from cold, kept in a pure and free atmosphere, and allowed their proper amount of rest, are naturally inclined to cheerfulness—an inclination which is further promoted by gentle exercise in the arms of the nurse; by the smiling countenance and tender cares of the mother; by the many objects which attract its attention in the open air during the warmer seasons of the year, as well as by the simple and cheerful songs of the nursery. The mother, who is herself of an amiable and cheerful

disposition, must perform but illy her duties as a nurse, or she would never have cause to complain that her time is wholly occupied during the day, and her rest disturbed at night, by the cries of a fretful infant.

CHAPTER VII.

DENTITION.

The danger and difficulty of teething removed by good nursing—Period of dentition—Order in which the teeth are cut—Symptoms of dentition—Ordinary treatment of the infant during the period of teething—Diet—A piece of Indian rubber recommended for the child to bite on—Management of the bowels—Difficult dentition—Diseases to which it gives rise—Mode of preventing these—Lancing the gums—Bowels to be kept open—Determination of blood to the head to be prevented—Swelling of the glands of the neck, how to be treated—Management of fever and disturbed bowels during dentition.

THERE is no circumstance connected with the infantile state upon which good or bad nursing

has a more powerful influence than the process of dentition or teething. When, by judicious management, the little being has reached in safety its fifth or sixth month—with all the organs of its system in perfect health and performing regularly and vigorously their respective functions, the teeth protrude from the gums without difficulty, and produce neither suffering nor danger to the child. But under an opposite state of things—when the irritability of the infant's system has been unduly augmented; when its energies have been impaired and a diseased condition of its digestive organs has been produced by neglect or an improper system of nursing; then the period of dentition is generally attended with distressing and violent symptoms, which cause a very great amount of suffering always, and not unfrequently prove fatal.

It is generally between the fifth and seventh month that the teeth begin to pass through the gums; though in different cases the time will be found to vary considerably; in some the teeth appearing earlier, in others not until some weeks or even months later. Although the cutting of the teeth is by no means marked with invariable regularity, the following will be found a tolerably accurate description of the order in which they generally appear. The two middle incisors, or cutting teeth, of the lower jaw are the first which pierce the gums; after an interval of a few weeks, these are followed by the corresponding teeth of the upper

jaw. In the course of five or six weeks, the lateral incisors of the lower jaw generally appear, which are succeeded shortly afterwards by those of the upper. The small, or anterior grinders of the lower jaw appear from the twelfth to the fourteenth month, and nearly at the same time, or shortly after, those of the upper. From the sixteenth to the twentieth month, the pointed or dog teeth are observed on each side, in the under jaw, followed by the same description of teeth in the upper jaw, vulgarly called eye teeth. Between this period and the thirtieth month or third year, the larger or posterior grinders appear. These first set of teeth, which consist in general of ten in each jaw, are called in popular language milk teeth, and, between the sixth and seventh year, are shed by a process of nature, in order to give place to a second or permanent set, composed of sixteen teeth in each jaw.

When dentition commences there are very generally an increased heat and tenderness of the gums; and an augmented discharge of saliva which causes the child constantly to slobber: his fingers are frequently held in his mouth, he presses firmly between his gums the nipple in suckling, and bites upon every thing which he can seize on and convey to his mouth. These symptoms are often accompanied with a slight fever, redness of the cheeks, watering of the eyes, increase of thirst, fretfulness, and an open state of the bowels; the discharges being fluid

and of a greenish colour: occasionally, there are an eruption upon the skin, soreness of the ears, vomiting and some disturbance of sleep. The symptoms of teething in a healthy child are sometimes so slight, as scarcely to attract any attention: even, however, when to the extent above described, all that is demanded is to confine the child to the breast, or when the thirst is considerable and it has been accustomed to other food, to give it, occasionally, a little toast, barley or rice water, sweetened with loaf sugar—to be careful not to keep it too warm, either by too much clothing or too hot a room. Its head in particular should be kept cool, as well during the night as in the day. As children appear to derive relief from the application of a slight degree of pressure to the gums during teething, something should be allowed them to bite. A substance that will yield to the pressure of the gums is to be preferred: An oblong piece of Indian rubber, two or three inches in length, will probably be the best; it should be suspended round the neck by a ribbon or tape. All hard and unyielding substances are positively injurious. Little attention need be paid to the bowel complaint which commonly attends teething; it is seldom very profuse. When, however, it is attended with much griping, an injection of thin starch or flaxseed tea, with the addition of a little sweet oil, will be beneficial. The same injection, with the addition of ten or twelve drops of laudanum, may

also be given when it becomes necessary to render the discharges from the bowels less frequent. During teething a child should be strictly withheld from animal and solid food, all stimulating drinks, and spices of every kind: its diet should consist, as we have already stated, solely of the breast milk or with the addition only of rennet whey, or of rice or toast water sweetened with loaf sugar: the use of the warm bath daily should not be neglected. If, in place of being more free than usual, the bowels are costive, an evacuation should be procured by some gentle laxative: in most cases a little molasses and water will suffice; this proving ineffectual, a dose of magnesia or of castor oil may be given.

It is not always, however, that the process of teething is attended with so little inconvenience, or that the symptoms which it produces can be managed with so much ease. In children of very irritable habits, in those who are gross and plethoric, or who previously to the commencement of dentition labour under some affection of the stomach and bowels, dentition is generally productive of very violent and serious disturbance, which, if not judiciously treated and promptly controlled, may terminate in the death of the little sufferer. Violent pain and ulceration of the gums, long continued and extensive disease of the bowels accompanied with frequent and vitiated discharges, convulsions and inflammation of the brain terminating in dropsy of that organ, are some of the unfortunate results

of difficult teething in children predisposed to disease. Their prevention, as we have already remarked, is to be sought for in a judicious system of nursing, carried on without interruption from the moment of birth; and by watching the advance of each tooth and endeavouring to reduce the irritation which it produces before it has had time to extend itself to other organs. The same regimen as was recommended above should be adopted—there is even still greater necessity for confining the child to a plain unirritating diet—avoiding every thing that has a tendency to increase too much the heat of the body, and keeping the head cool.

The gums should be daily and carefully examined, and if hard and swelled, and the tooth is evidently pressing upwards upon them, a free incision should be made with a lancet, so as to separate the tough membrane by which the tooth is enveloped; the tension of which by the latter as it rises upwards to penetrate the gum, causes all the pain and irritation which the infant suffers. The lancet should be carried down until it reaches the tooth, and, if it is one of the large teeth which is about to protrude, a cross incision will be necessary, as well as one in the direction of the jaw. This operation gives but little pain, and is never, when judiciously performed, attended with danger, while in many cases it is followed by immediate relief, and prevents fever, convulsions, and sometimes even death. It is important, how-

ever, that it be performed before the irritation has extended itself from the gums to the brain, stomach or other organ, that is as soon as the swelled and distended state of the gum indicates that the tooth is pressing firmly upon it. If the bowels are costive, it will be necessary to administer some mild purgative. The best perhaps will be a few grains of calomel followed by a dessert spoonful of castor oil. If there is considerable heat about the head with flushing of the cheeks, much benefit will be derived from frequently washing the head with cold water, and if the child wears a cap leaving this off. In many cases the increased determination to the head is such as to demand the application of a sufficient number of leeches to the temples or behind the ears. When the glands in the throat become swollen and tender, great relief will be obtained from leeches to the part where the swelling is the greatest. Considerable fever, pain in the stomach and bowels, frequent slimy stools often streaked with blood attended with considerable griping, are best treated by leeches to the region of the stomach or abdomen, plentiful dilution with cold toast or rice water, and mild mucilaginous injections. The diseases to which teething may give rise, when they have once made their appearance, demand the same treatment as when produced by other causes: care should always be taken, however, by freely scarifying the gums, to remove or lessen the irritation produced by the advancing teeth.

CHAPTER VIII.

VACCINATION.

Improper to consider it a disease—Its importance as a means of preserving life and preventing deformity—Objections to vaccination considered—It is a certain preventive against small pox—Its effects are not impaired by time—Does not entail a tendency to eruptive diseases on the child—Age and condition of the child during which it is proper to vaccinate—Proper season of the year for vaccinating—General precautions—Phenomena and progress of vaccination.

It is usual to treat of vaccination among the diseases of infants: we prefer, however, to consider it as an item, and a very important one, in the proper rearing of children. It cannot surely be viewed as a disease. During the whole time the infant is subjected to the infec-

tion of the vaccine virus, notwithstanding the important modification which certain portions of its system undergo, it scarcely suffers a momentary pain or inconvenience, nor is there ordinarily a single symptom developed which calls for the administration of even the simplest medicine, or which requires the most trifling change in its diet or in any thing connected with its nursing, provided this has been conducted on correct principles. Vaccination is, however, an all important means not only of preserving the lives of infants, but of preventing their being subjected to the loss of sight and other deformity, and of insuring their future health and comfort. Previously to the discovery by Jenner in 1798, of the protective powers of vaccination, and the subsequent general introduction of the practice among all civilized people, more than one tenth of all the children born, perished either immediately of small-pox, or ultimately of affections which it had been the means of calling into existence. This statement has not reference merely to the disease as it prevailed epidemically, and previously to inoculation for small-pox being practised: even after the latter period the mortality from the disease was immense—the inoculated forming so many points from which infection was continually diffusing itself among the unprotected. But, independent of this appalling destruction of life caused by small-pox, it was productive, in those who survived its attack, of effects scarcely less to be dreaded than death itself. After suf-

fering for many weeks under its loathsome symptoms, thousands have recovered with the entire loss of their sight, or to drag out a miserable existence, deformed and debilitated by diseases of the joints, a burthen to themselves and all about them; or with their faces disfigured by seams and pits and wrinkles; objects of pity and commiseration to one portion of their fellow creatures, and not unfrequently of ill concealed disgust to another. From all these evils vaccination is an effectual and easy security. Those parents who neglect to place their offspring at an early period under its influence, cannot be said to have performed honestly all their duty towards them, and should the latter, in consequence of this neglect, become the victims of a hideous and loathsome disease, compunction and regret of the keenest kind will not fail to be the portion of the unhappy delinquents. A few unfounded objections against vaccination are still urged by some persons, who however are ignorant of the facts connected with its history. The principal of these are the following:

1st. Vaccination, it is said, does not afford an absolute protection against an attack of small-pox, as is evinced by the prevalence of what are termed varioloid epidemics. We reply that the great majority of those who have been *successfully* vaccinated, have, under every possible exposure to the contagion of small-pox, entirely escaped an attack of that disease even in the

mildest form. But when a modified form of small-pox does occur in the vaccinated, there is no well authenticated instance of its being accompanied in its progress by violent symptoms of any duration; of its proving fatal, destroying sight, disfiguring the countenance; or, like genuine small-pox, leaving after it tedious and disgusting diseases. Even were this not the case, the fact of a second and even third attack of small-pox is well established; the succeeding attack being often more violent and destructive than the first. So that nothing would be gained, admitting this first objection to be valid, were inoculation for the small-pox to be resorted to in preference to vaccination.

2dly. Another objection frequently made to vaccination is, that although it affords a security against the small-pox, during the first years of infancy, until perhaps the seventh year, yet, after that period, the individual is liable again to the latter disease, and numbers then do contract it. The great body of facts which have been accumulated in reference to the protective powers of vaccination, and repeated and numerous experiments, prove the entire futility of this objection. It is not true that the modification produced in the system by vaccination, upon which its subsequent insusceptibility to small-pox depends, is ever obliterated. The adult, vaccinated in his infancy, has been found as effectually to withstand the contagion of small-pox, under an equal degree of exposure, as the

infant that had been placed under the influence of the vaccine virus but one year previously.

3dly. It is objected to vaccination, that it entails a variety of eruptive diseases on the child, and, in the language of the objectors, bad humours. This same objection, and with a greater degree of propriety, was urged against inoculation for small-pox in 1746. In the Royal Metropolitan Infirmary for children, in London, no case of cutaneous disease has been observed after vaccination, where other evident causes could not be ascertained. The period commonly chosen for vaccination is from six weeks to three months after birth, when the infant is in general confined entirely to the breast, and is accordingly protected in a great measure against the evils of overfeeding and improper food, and when the irritation from teething is yet distant. To one or other of these causes the majority of the eruptive diseases of children are undoubtedly referable; and as these do not generally come into operation until after vaccination has been performed, it is not a matter of surprise, that credulous mothers should be often led improperly to connect them together as cause and effect. The most ample experience has shown however that no cutaneous affection, or bad humour, ever springs from vaccination, beyond a trifling rash, which now and then shows itself during the progress of the vesicle on the arm to maturity, and always disappears spontaneously.

There is no particular age at which vaccination cannot be performed without the least danger: in general, however, it is better to wait until the infant is six weeks or two months old, after which the sooner vaccination is performed the better. During the prevalence of small-pox as an epidemic, whatever may be the state of the child's strength or health, provided there is a reasonable prospect of its surviving, and it is labouring under no severe disease, we should not hesitate to afford to it the protection of early vaccination; but under ordinary circumstances, when the child is weakly or indisposed, it is better to wait until it has regained its vigour or it is restored to health. The season of the year or the state of the weather has little or no influence upon vaccination. It is nevertheless proper, when it can be prudently done, to defer its performance until a mild and dry season, avoiding the intense heat of summer as well as the severe cold of winter. The principal precautions in vaccinating are to make choice of genuine matter taken from a healthy child; to insert it in the arm in such a manner that a sufficient quantity fully to impregnate the system shall be absorbed; to debar the child during the progress of the infection from all solid and heating food; and to be careful that the arm in which the matter is inserted be preserved from irritation, and the vesicle, when it forms, from rupture. We shall now proceed to describe the appearance and progress of the

arm, when vaccination has been effectually performed—any irregularity, or considerable deviation from the phenomena here laid down, will, in our opinion, indicate a spurious disease affording no certain protection against the small-pox. Between the second and fourth days after the insertion of the matter into the arm, a small red speck will be observable at the place of insertion which gradually becomes larger and more distinct until about the fifth or at furthest the sixth day, when in its centre is perceived a distinct vesicle filled with a perfectly limpid fluid; on the seventh day this vesicle is larger and more turgid; on the eighth it is surrounded with a bright areola or ring, perfectly circular, and varying from one to two or even more inches in diameter; the part occupied by this redness is evidently inflamed, hard and swollen. About this period it is not uncommon for the child to be affected with some slight symptoms of fever, which may continue for a day or two; these however are by no means an invariable concomitant, nor in any manner necessary to perfect vaccination. Until this period the vesicle has been depressed in the centre with an even surface; but on the ninth or perhaps the tenth day it will become more even, and sometimes the centre will be the most prominent part. The vesicle assumes a circular form and is of an opaque pearly colour. The inflamed ring or areola is now at its height, and from this period will begin to fade. About the

eleventh or twelfth day, the centre of the vesicle becomes of a brownish colour, the areola is much less distinct and in a short time entirely disappears. A hard, round, brownish scab now forms, becoming finally almost black, and if not accidentally detached, it will not fall off for a week or ten days. After the removal of the scab the surface it occupied presents a round scar of a shining silvery appearance, and having an uneven surface as though it had been formed by the nibbling of some small animal.

PART FOURTH.

DISEASES OF FEMALES



CHAPTER I.

DISEASES OF MENSTRUATION.

What is meant by menstruation—The age at which it occurs in different climates—Its duration—Cautions to be observed on its first appearance, and during its presence—Period at which it ceases—Retention of the menses, symptoms, causes and treatment—Suppression of the menses, causes, symptoms and treatment—Immoderate flow of the menses, treatment—Difficult menstruation, causes and treatment—Cessation of the menses—Proper treatment to prevent unpleasant symptoms at this period.

By menstruation is meant that discharge of a bloody fluid, which takes place every month from the womb of a healthy adult female. The age at which the menstrual discharge commences varies from many circumstances, chiefly, however, from those of climate, and peculiarity of

constitution. In warm climates, menstruation appears often as early as at eight or nine years of age; for there the general growth of the body advances more rapidly than in colder climates, and the atmosphere is more stimulating. In temperate climes, it is usually postponed until the thirteenth or fourteenth year; and in the colder regions, until the nineteenth or twentieth. In all climates, however, when the constitution has acquired the age in which the discharge should take place, various causes may accelerate or retard its appearance. The chief of these are preternatural degrees of heat, certain diseases, fever, or any stimulus that quickens the circulation; anger, or other violent emotion of the mind; inordinate exercise; fear, and severe grief; improper diet; a luxurious mode of life; neglect of exercise, &c.

The flow continues from two to eight or ten days; and the quantity discharged varies from four to ten ounces in different individuals. Women of a delicate habit and lax fibre have a more copious and longer continued discharge than those of a robust constitution.

For the two or three first times of its appearing, the discharge is apt to be somewhat irregular, both as to the quantity of fluid which is discharged, and the period of its return; but after these, it usually observes stated times, and nearly the same quantity is lost at each visitation, unless some irregularity should take place.

About the first appearance of this discharge,

the constitution undergoes a very considerable change, generally, indeed, for the better, though sometimes for the worse. The greatest care is then necessary, as the future health and happiness of the female depend in a great measure upon her conduct at that period.

She should be careful to take exercise daily in the open air, to partake of a wholesome, nutritious, easily digested diet, and not to indulge in tight dressing. The exercise should be free and active, which will be found to promote digestion, to enliven the spirits, and to insure a proper discharge. It is worthy of the especial attention of young women, that we seldom meet, at this period, with complaints from obstruction amongst the more active and industrious portion of the sex; whereas the indolent, inactive and luxurious are seldom free from them.

After the *menses* or courses have begun to flow, great care should be taken to avoid every thing that may tend to obstruct them. Females ought to be exceedingly cautious of what they eat and drink at the time they are out of order. Every thing that is cold, or apt to sour on the stomach, all stimulating food and drinks, and whatever is found by experience to disagree with them, ought to be avoided.

Exposure to cold is extremely hurtful at this period. More females date their disease from cold caught while they are in this situation, than from any other cause. A degree of cold that

would not in the least hurt them at another time, will, at this period, often be sufficient to ruin entirely their health and constitution. It is not meant that they should then confine themselves wholly to the house or to warm rooms, but that imprudent exposures should be guarded against, and the clothing, especially of the feet, be somewhat warmer than usual. The final cessation of the menses generally occurs at about the fortieth or forty-fifth year. In some rare instances they continue, however, until a much later period, and they sometimes cease more early.

When the courses do not make their appearance about the fourteenth or fifteenth year, it need excite no uneasiness, so long as no symptoms of disease present themselves, and the functions of the stomach, lungs and heart are performed with regularity. In some instances, however, the non-appearance of the menstrual discharge at the usual period, is connected with a diseased condition of the stomach and other organs, to remove which a proper course of treatment is all important. The menses are then said to be *retained*, and the female most commonly presents a pale, blanched complexion. She is affected with great languor, and listlessness, her appetite is impaired, and digestion is imperfectly performed. The disease is generally termed, from the pale, livid, and greenish cast of the skin so commonly present, the *Green Sickness*.

The symptoms consist chiefly in a general

sense of oppression, languor, and indigestion. The languor extends over the whole system, and affects the mind as well as the body; hence, while the appetite is feeble and capricious, and shows a desire for the most unaccountable and unnutritious substances, as lime, chalk, &c., the mind is capricious and variable, often pleased with trifles and incapable of fixing on any serious pursuit, or it is depressed with melancholy forebodings. The heat of the surface is diffused irregularly, and is almost always below the point of health; there is, consequently, great general inactivity, and particularly in the small vessels and extreme parts of the body. The pulse is quick but feeble, the breathing attended with labour, the sleep disturbed, the face pale, the feet cold, the nostrils dry, the bowels irregular or confined, and the urine colourless. There is also, sometimes, an irritable and distressing cough; and the patient is thought to be on the verge of a decline, or perhaps to be running rapidly through its stages. A decline, however, does not usually follow, nor is the disease often fatal, although it should continue, as it has done not unfrequently, for some years.

The principal causes which give rise to these symptoms are indigestion occurring at the age of puberty, combined with a want of energy in the blood vessels of the womb that prevents them from fulfilling their office. Constitutional weakness and relaxation frequently predispose to green sickness; and whatever enervates the

general habit, or the stomach in particular, such as an indolent mode of life, indulgence in heated rooms and late hours, long residence in crowded cities, insufficient, unnutritious, or stimulating and indigestible diet, and constipation, may be ranked among its causes.

The great object in the treatment of this disease is, to restore the impaired functions of the digestive organs, the skin, heart and lungs; and the uterus will be quickly roused from its inaction, and perform its office with regularity and vigour. The patient should take daily exercise in the open air, particularly on horseback, resorting to change of air and scene as often as circumstances will permit. Dancing likewise will be found an excellent exercise, provided it be in the day time and not indulged in to the extent of producing fatigue. She should make use of light nutritive food of easy digestion, and abandon the use of tea, coffee, and all stimulating drinks. To rise from bed and to retire to rest at an early hour morning and evening is all important in this disease. In fact, the rules to be observed with respect to diet and regimen, are precisely the same as those which are laid down in our chapter on *training for health*. A warm bath twice or thrice a week, and active friction twice a day with the flesh-brush over the region of the stomach and bowels, are on no account to be neglected. The friction should be performed by the patient herself, at least

every night and morning, for fifteen minutes at each time.

A regular state of the bowels should be solicited by occasional doses of the compound rhubarb pill or common aloetic pill, or when obstinate costiveness prevails a dose of the compound colocynth pill will be proper.

When the acidity of the stomach is very distressing to the patient, a tea-spoonful of calcined magnesia, or a mixture of equal parts of magnesia and rhubarb may be taken.

Electricity, in the form of sparks drawn from the lower belly, or of slight shocks passed through it, may be resorted to in obstinate cases, and will frequently be attended with considerable advantage.

It now and then happens, that retention of the menses occurs in florid, full-bosomed girls, who have no mean share of general vigour, in which case the pulse is full and tense, the face flushed, and the pains in the head and loins very severe. The ordinary cause of the retention in these cases, is exposure to cold at the period of the menstrual discharge; and the full habit of the patient and symptoms of fever by which it is attended will bear and require at the commencement the use of the lancet and saline purgatives. The warm bath also should be steadily used, with a plain light diet, and regular exercise.

After the menses have made their appearance and have continued to recur regularly for months or even years, it sometimes happens that they

are accidentally *suppressed* after catching cold, and from various other causes. In full robust habits the suppression of the menses is attended with pain in the head or side, cough, heat of the skin, thirst and other symptoms of fever. In such cases blood-letting, moderate doses of Epsom salts, the warm or hip-bath used twice a day, with a very low vegetable diet, and cool slightly sour drinks, will be the remedies demanded. But in no case should forcing or heating medicines be given. A cessation of the courses takes place also during many diseases. In these cases the female is apt to think that the absence of the monthly discharge is the cause of the disease under which she may labour; this, however, is rarely, perhaps never the case; all endeavours, therefore, to restore the discharge under such circumstances, especially by active purgatives, heating teas and forcing medicines of any kind, are positively injurious. When the primary disease is removed, and the body has recovered its strength, the womb will resume its healthy functions, and the monthly discharge will be restored.

Luxurious living, with indolence or inactivity, often gives rise to an obstruction of the menses; hence, abstinence, and an increase of exertion and daily exercise in the open air, are the natural remedies—the effects of which may be aided in many cases by a moderate bleeding and mild laxatives. They who are subject to suppression of the menses should be careful to avoid cold and

wet by proper clothing; they should especially keep the feet warm and dry.

Excessive flow of the menses. Whenever the discharge from the womb is in such immoderate quantities as to weaken the female, great caution is demanded. Perfect rest in a recumbent posture, with the hips considerably elevated, exposure to a cool air, cold applications to the lower parts of the abdomen, such as linen or cotton cloths wrung out of cold water or cold vinegar, and a very abstemious cool diet, will be advisable. From thirty to forty drops of the elixir of vitriol in a glass of water, or from ten to fifteen drops of the tincture of steel, may also be taken two or three times a day. In some instances, however, a profuse flow of blood from the womb is a very serious disease requiring a much bolder and more energetic treatment than that here described. Such cases can be managed only by a skilful and experienced physician, and in procuring the advice of such a one no time should be lost—a trifling neglect may endanger the life of the female, or at least entail upon her for life a disagreeable and enfeebling infirmity.

Painful or difficult menstruation. Few complaints are more distressing than painful menstruation. Some nervous females suffer so acutely from spasms in the region of the womb, and sometimes in the stomach, and from violent pains in the loins, that the whole nervous system, particularly the brain and spinal marrow, becomes greatly disordered, so as to produce violent

hysterical fits, and even convulsions. A considerable degree of pain in the loins, and some nervous symptoms generally accompany the first appearance of the menses, and until their regularity is fully established. When painful menstruation occurs at a later period, it may arise from cold, irritability of constitution, costiveness, or inflammation of the womb or of a neighbouring part; but a very common cause is a morbid sensibility of the nerves distributed to the womb, in consequence of some affection of the spinal marrow. Women who have had what is commonly called the *childbed fever*, those who have not married till late in life, those of a nervous temperament, and particularly those of a scrofulous habit, are very subject to it.

They who are liable to painful menstruation, or to spasms in the stomach, or any other part of the abdomen, immediately before or during the period of the courses, should be very particular in keeping the feet warm, and should wear flannel next the skin, and avoid green vegetables, raw fruit, and stimulating food and drinks of every kind. When the pains are very violent in the back, loins and lower part of the belly, bleeding will often be demanded, followed by the warm bath and a pill of opium and camphor. Cupping the lower part of the back between the hips, or a blister to this part, is often of service.

Whenever the system is full of blood, and particularly when pain of the head is complained of, or if blood escapes from the nose, or is

brought up from the stomach or lungs, or discharged from piles, and the discharge from the womb does not take place, or if it be deficient in quantity, abstraction of blood from the loins or thighs, by cupping, will be proper, and, if the lungs be oppressed, or the head much affected, it may prevent very serious mischief.

One of the best palliatives in this affection is the application of warmth to the region of the womb, and over the whole surface of the abdomen, by means of bottles filled with hot water. Warmth may also be applied, at the same time, to the feet.

In many cases of painful menstruation the most efficacious plan of treatment is said to be the administration of from thirty to forty or even fifty drops of the volatile tincture of guaiacum, in sugar, or in milk and water, three times a day; with a gentle laxative every other night, so that the bowels may be kept regular without being purged. At the same time, the patient ought to take much exercise daily in the open air, either on horseback or on foot; to be attentive to the rules of diet laid down in the chapter on *Training*; and to mingle with cheerful society. A warm bath at about ninety degrees, every other morning, will likewise be advisable; and change of air and scene will much conduce to recovery. This plan ought to be persevered in for a considerable time, until the patient is sensibly restored to the full enjoyment of health and strength; for this is the great object

aimed at, the accomplishment of which will very rarely fail to prevent the recurrence of pain at the future returns of this discharge.

Tight lacing must be avoided, particularly for a few days previously to the time the discharge should take place.

Final cessation of the menses. This discharge seldom ceases all at once, but for some time before its stoppage becomes somewhat irregular, both as to the periods and the quantity. The time of its final cessation is always a critical one; because the constitution then undergoes a considerable change, and there is often a strong tendency to the formation of obstinate and painful complaints.

When the discharge happens to disappear suddenly in women of a full, plethoric habit, the diet should be more spare than usual, regular exercise should be taken, and some gentle laxative to keep the bowels free, occasionally administered. When the patient is sensible of a seeming fulness of the vessels of the head, with giddiness and pain, bleeding will be advisable.

If ulcers break out on the legs, or any other part of the body, at this period, great care should be observed not to heal them up incautiously, lest disease of some internal organ be thus induced.

CHAPTER II.

DISEASES OF THE EXTERNAL PARTS, AND OF
THE WOMB.

Of the whites, symptoms, causes and treatment—Itching of the external parts, remedies—Falling of the womb, causes, remedies—Inversion of the womb symptoms to which it gives rise, by what caused, treatment—Fleshy tumours of the womb, description, symptoms indicating their presence, treatment—Polypus of the womb, description, symptoms, management—Cancer of the womb, symptoms, treatment.

Whites. This complaint consists in a discharge of a yellowish-white or greenish fluid from the womb and its passage. In the mildest cases, the discharge is mostly of a whitish colour, sometimes almost colourless, small in

quantity, and unaccompanied with any soreness or uneasiness in the parts; but in the severer examples, it is yellow, greenish or dark coloured, thin, sometimes very acrid and highly offensive, and occasioning itching, smarting and other local symptoms of a very distressing nature. In most cases, there is pain and weakness in the back, and a sense of general languor; and when the disease is severe and of long standing, it is generally associated with an unhealthy countenance, disordered stomach, general debility, and a dry, hot skin.

It occurs most frequently in women of delicate constitutions, or in those whose health has been greatly impaired by profuse evacuations, improper diet, sedentary living, grief, intemperance, or other causes of exhaustion. It sometimes, however, arises chiefly from injuries inflicted upon the parts themselves, in consequence of difficult labours, frequent miscarriages, a dissolute life, or other causes.

Those persons who live in a moist atmosphere, who keep late hours, and spend much of their time in bed, or who are much confined in hot rooms, are particularly apt to be affected by this complaint. It sometimes arises from suckling too long. Women of all ages are subject to it.

In the treatment of the whites, our remedies must be directed as well towards the general constitution, as to remedy the local disorder. Any attempt, unadvisedly, to remove the discharge by astringent applications, might in many

cases prove highly prejudicial. In many instances, particularly when the patient is young, tolerably robust or full of blood, and the disease has not been of long duration, it will be advisable to take blood from the arm, and restrict the female to a very spare unirritating diet of easy digestion. If there should be symptoms of local fulness, or much pain, tenderness or heat about the womb, leeches may be applied to the lower part of the abdomen with advantage. Soda water, made with the lemonated soda powders, may be used as common drink, and will be found of great service. If the discharge still continues after these remedies have been properly and fully tried, then injections of lead water, a solution of white vitriol or of lime water are to be had recourse to. Injections of alum water, of a decoction of oak bark, of a solution of nitrate of silver and other substances have been directed in obstinate cases; their use, however, demands considerable circumspection and sound judgment.

It is an important indication in the treatment of the whites to correct any improper habits of life, and remedy the state of the general system. The country air will in most cases be beneficial. Exercise in a carriage, when it can be obtained, should be regularly used.

Sea-bathing will be found very useful, when no symptoms are present forbidding it, and the strength has been a little improved. The warm bath may be substituted for this, in most cases, with decided advantage.

It is all important to keep the parts perfectly free from the vitiated discharge which takes place from within them. To do this, frequent washing with warm water will be demanded, as well as injections of the same internally. Iced water injected will also be of service in many cases.

The whites almost always attends the diseases of the womb; these cases should be carefully distinguished from those which arise merely from disordered action, as the use of astringent injections in the former might prove injurious. Those cases in which it occurs after the entire cessation of the menses, may be suspected to arise from some other disease; it will therefore be necessary, in these instances, to resort to the best medical advice.

Itching of the external parts. This is a very distressing complaint, sometimes amounting to a degree of intolerable suffering. It frequently accompanies diseases of the womb, on the removal of which its cure will depend: sometimes it occurs independently of any other complaint, and in these cases frequently bathing the parts with warm water, and anointing afterwards with fresh lard, will be found of advantage. A small quantity, applied night and morning to the parts affected, of an ointment composed of equal parts of blue and citron ointments, has been recommended as very generally effectual in removing the itching.

Leeches to the parts will be sometimes re-

quired—in other cases relief will be obtained from washing them with a watery solution of opium, or lead water, or a weak solution of nitrate of silver. In the intermediate time, they may be frequently fomented with warm milk and water. Thirty drops of balsam copaiba taken inwardly three times a day, has succeeded in curing the affection when all else has failed.

Falling of the womb. This is a complaint, in which the womb descends from its natural situation into the passage, and sometimes entirely passes through the external parts, forming a tumour there of about the size of an ordinary melon. The immediate causes of it are : relaxation of those ligaments by which the womb is supported in its natural position, and a want of due tone or strength in the walls of the passage, which should assist in sustaining it; the first permitting it to fall, the second allowing it to be received into its cavity. Therefore, whatever is capable of producing a lengthened state of the ligaments, or a relaxed state of the passage, may become the occasional cause of the complaint. This sometimes occurs after long continued diseases, and profuse discharges particularly of blood, which have diminished the patient's strength. But the most common cause is a long continued erect posture of the body at an early period after delivery, and, in some cases, after miscarriage; at this time the patient is not only weakened, but the womb weighs eight or ten

times more than it does in the usual state, and is carried down by its own weight.

Patients are often inclined to think, that their medical attendants oppose their leaving bed for an unnecessary length of time; and it is very common for them to disobey their directions in this, as well as many other respects. But this advice is given from having frequent occasion to observe the evils that ensue from a contrary practice. When females are inclined to leave their bed, they should not remain long on their feet, nor sit in a chair, but lie down frequently on a sofa or outside of the bed, until the third or fourth week after delivery; at which time the womb will have regained its usual size, and all the parts their former strength. Those females who are liable to violent coughs during their confinement, are especially the subjects of this complaint, from the pressure made upon the womb when the passage can afford no assistance in supporting it.

The *symptoms* in this complaint arise partly from the effects produced on the surrounding parts by the change in the situation of the womb, and partly from sympathy. At the commencement there is pain in the back, with a sensation of dragging and bearing down; pain is also felt about the groins; there is a sense of fulness in these parts, and a discharge of mucus from the passage. The pain and bearing down generally cease as soon as the patient assumes a lying posture. A frequent painful and straining in-

elination to pass the urine, is sometimes present; and considerable uneasiness is also felt on going to stool. The symptoms arising from the sympathy between the stomach and the womb are distressing. The appetite becomes irregular, or is totally lost; the stomach and bowels lose their tone, and are much distended with air; the spirits sink, every employment becomes irksome, and life itself is scarcely desirable.

The womb, in some cases, merely falls into the cavity of the passage, but, in others, it protrudes beyond the external parts: in the latter case, from exposure to the air, and the friction it suffers, sores usually take place upon its surface, surrounded by a good deal of inflammation. Slight degrees of this complaint can only be ascertained by great attention to the state of the parts, together with a knowledge of the common size and length of that part of the womb which hangs down into the passage. It may be distinguished from other tumours, by the existence of the orifice of the womb at the lower part of it. In every case of falling of the womb, the latter should be restored as quickly as possible to its proper place, by an experienced practitioner. After replacing the womb as nearly as possible in its natural situation, it is to be retained there by an instrument called a pessary. Pessaries are made of various shapes and substances; but the best is that of box wood, of an oval shape, flat, and with a hole in the middle, large enough for the insertion of the finger. One of these, of a

proper size, previously oiled, is to be introduced, as far as possible, up the passage, and constantly worn there. Some care is necessary in the introduction of it; the patient should lie on her back, and place the instrument between the external parts, so that one edge will be turned towards the anterior, the other towards the posterior part; it is then to be moved in a circular direction on its own axis, pressing it backwards, and carrying it gently upwards to the part at which it is to be placed; it is then to be turned, and applied with its longest diameter crossways, so that the womb may rest on one of its broad surfaces. As the parts recover their tone, and become more contracted, the instrument may be changed for a smaller one.

For some time after the replacement of the womb, the patient should remain in a lying position, and be careful, always, of using any violent exertion, remaining too long on her feet, or walking too far.

The bowels should be carefully attended to, in order to prevent costiveness or straining at stool. When opening medicine is required, castor oil will, generally, be found to answer best. If griping be troublesome, from five to ten drops of laudanum may be taken two or three times a day, in any simple aromatic water. Sea-bathing, when it can be obtained, will sometimes be particularly beneficial. The diet should be nutritious but plain, and of easily digested food. The patient should sleep upon

a sofa or a mattress at night, in preference to a bed of feathers.

Astringent injections, thrown up the passage by means of a proper syringe, will often be serviceable: as a solution of alum or white vitriol, or a decoction of oak bark or nut galls. A bandage properly applied round the lower part of the abdomen from the hips upwards will be found of eminent service in contributing to retain the womb in its proper situation and to give strength to the weakened parts.

When pregnancy takes place, this complaint always disappears after the fourth month, as the womb then rises above the basin, and is prevented by it from falling. In this case, great care should be taken not to assume the erect posture too early after delivery. The patient should keep her bed for several weeks, until the parts have recovered their strength; by which means, the recurrence of the disease will, in general, be prevented.

Inversion of the womb. This complaint consists in an inversion of the cavity of the womb, so that the upper part comes through its orifice; consequently that part which was formerly the inside of its cavity, is converted into the outside of a tumour, either contained in the passage, or projecting from it. The disease is not so frequently met with as it was formerly, from the improved state of the art of midwifery; as it most usually proceeds from mismanagement of the after-birth. In cases of retention of that

substance, it was formerly the custom to pull at the navel string, instead of introducing the hand to separate it, by which the womb, being in a relaxed state, has sometimes come along with it, being in a manner turned inside outward. It is, consequently, a complaint almost peculiar to those who have borne children. But it sometimes, though very rarely, affects unmarried women, from a peculiar tumour being formed in the womb, called a polypus, which, passing through the orifice of the womb, drags down that organ with it.

The immediate consequences of an inverted womb, when it takes place after delivery, are flooding, faintness, and a sense of fulness in the external passage. When this disease is discovered early, it may generally be removed without difficulty. By gradually pressing on the lower part of the tumour, it will be restored to its natural situation. If the after-birth be still adherent, it should be allowed to remain until this is effected; as if it be removed while the womb is inverted, excessive flooding may ensue, from its not being able to contract and close the vessels in that situation. But if the accident be not discovered until after some time, there may be difficulty, and indeed an impossibility of reducing it, from the orifice contracting so firmly around the neck of the womb, as to prevent the body passing through: and the difficulty and danger of the case may also be increased, by inflammation having attacked the part. But as it

is a case in which the assistance of a medical practitioner will be absolutely necessary, we shall not enter further into the consideration of it in this work. We have made these observations, that patients may be aware of the nature of the accident, when it occurs, as by timely information much future ill may be prevented.

Fleshy tumours of the womb. These are tumours, various in shape and consistence, growing from the inner surface of the womb. In some cases there is only one tumour; in others there are several. Their form differs very much; they are most commonly of an oblong spherical form. These tumours are sometimes not larger than a nut; sometimes they weigh several pounds. This disease is sometimes mistaken for a dropsy of the ovaries, and for pregnancy. It may, however, be generally distinguished from dropsy by the firmness of the tumour, and the want of fluctuation. It is only in the early stages of the fleshy tubercle, or polypus of the womb, that this can be mistaken for pregnancy; because, when the womb in pregnancy rises above the brim of the pelvis, the motion of the child may be felt. The tumour of pregnancy after this time increases quickly; that of polypus slowly. In pregnancy the stomach becomes affected, and the breasts enlarge and are painful—changes which do not in general occur in polypus of the womb.

No dependence is to be placed upon the state of menstruation; because in pregnancy, coloured

discharges occasionally take place, and in the disease of which we are treating, the menses are sometimes wholly obstructed.

This is not a very uncommon disease, and it affects women at all periods of life. Married and unmarried are alike liable to it. These tumours have no disposition to ulcerate, neither do they form abscesses or gatherings. They are generally accompanied by a slimy discharge, sometimes mixed with blood. The other symptoms are, for the most part, such as arise from the mechanical effect of the tumour. There is a frequent disposition to go to stool, and also to make water. The legs are sometimes affected with cramp, from its pressing on the nerves going to them: and there is a puffy swelling of the feet and ankles from its pressing on the vessels which conduct the fluids from the lower extremities. When the tumour becomes so large, as nearly to fill the cavity of the basin, there may be great difficulty in evacuating the bowels, and a total inability of emptying the bladder. The weight of it, and its pressure upon the parts below, will occasion a sense of bearing down. The constitution is seldom much affected. This disease does not appear to be influenced by medicines internally exhibited, nor by external applications. Cramp will generally be relieved by lying for a short time in a horizontal posture: and if there should be much difficulty in evacuating the bowels, an injection may be given every morning. Friction

with liniments containing opium, may be usefully employed in cases where much uneasiness is excited in the parts surrounding the tumour. The circumstance that requires most particular attention, is the state of the bladder. Retention of urine, from the pressure against the neck of it, is one of the earliest and most distressing symptoms. In some cases the patient will be capable of voiding small quantities, if she lie upon her back with the hips raised by pillows a little from the bed. But, in other cases, it will be necessary to draw it off by an instrument called a catheter.

It may be necessary, occasionally, to have recourse to anodynes to diminish the painful sensations that arise from irritation.

Polypus of the womb. The foregoing are the symptoms arising from those tumours which have a broad and short basis; but that which has a long and slender stalk, and to which the name of polypus has been given, is productive of symptoms which vary in some degree from those just described. The tumour does not in general attain so large a size; consequently the symptoms arising from pressure on the parts within the basin are not so urgent; and when the polypus attains a certain bulk, it reaches the orifice of the womb, dilates it, and escapes through it into the external passage.

Polypii generally grow from the upper part of the womb, and the weight of the tumour then brings on many disagreeable symptoms; as bear-

ing down, pain, and irritation; and sickness, and disorder of the stomach from sympathy. This species of tumour may, in general, be removed by a ligature; and when it has arrived at this state, it should be done without delay, as the symptoms it induces exhaust the strength of the patient. But, as the removal must of course be done by a surgeon, it will be useless to treat of it in this place. We must however observe, that a natural separation sometimes takes place: this may occur either from the weight becoming too great for the slender stalk to bear, or from inflammation attacking it, or the neck of the womb acting upon it as a ligature.

Cancer of the womb. This disease most frequently occurs soon after the cessation of the menses. The notion that cancer arises from a peculiar poison in the system, or that it is a disease of the whole body, is certainly erroneous; it has its origin from the same causes with other tumours.

The symptoms of cancer in the early stage, are but trifling, and it frequently continues for several years before they excite much attention, particularly in those who lead a temperate life.

A sense of weight in the womb, and a slimy discharge, are usually those first perceived. This discharge is sometimes tinged with blood, and particularly when the patient indulges too much in eating or drinking, or when the food has been of a stimulating quality. Violent exercise will sometimes cause a discharge of blood,

in such quantity as to produce great weakness, and occasionally fainting. Generally, whilst there are discharges of blood in moderate quantity, the tumour remains stationary. If menstruation has not ceased, it becomes irregular, and is more profuse than it ought to be. The symptoms produced by the mechanical effect of the tumour within the womb are seldom of much consequence, as the size is not often considerable. When pain comes on, the stomach and bowels usually become disordered. Even in the early stages of this disease the stomach is liable to be, in some degree, affected; though the more severe affections of this organ do not generally attack the patient until ulceration has commenced. Upon an examination, the neck of the womb will be found thickened, and with a resisting feel, resembling that of gristle; or a distinct tumour will be perceived arising from some part of the neck of the womb, the other parts remaining healthy. In either case, pressure upon the diseased parts will be productive of pain, and of a sensation like that of moving a hard body. The neck of the womb will also be found to have undergone a change. It becomes larger than natural, and feels as if surrounded by a thick, firm, irregular ring.

As soon as the existence of the disease is ascertained, the most vigorous measures should be adopted to check its progress. The treatment that we would strongly recommend, from a conviction of its beneficial effects, is that of

touching the womb frequently with carbolic acid, or injecting in the tissue thereof strong acetic acid. The diet should not be stimulating, but light and nourishing.

The state of the general health should be carefully attended to, as much will depend on a due regulation of that. The bowels should be kept freely open by clysters; and the complaints of the stomach palliated by a proper diet with light bitter medicines, and the use of carbonated soda water as a common drink.

When ulceration has taken place, the use of opium must be had recourse to, for the purpose of alleviating the pain and sense of bearing down, and moderating the effusion of blood, which usually accompany it.

Violent exercise must be avoided; and the patient should lie in a recumbent posture the greater part of the day. When the disease has made a certain progress, medicine, we regret to say, is of little service excepting to abate the more distressing symptoms; but much alleviation will be experienced from the moderate use of opium, quietness, and a light, cooling diet.

CHAPTER III.

HYSTERICIS.

What is meant by hysterics—Symptoms—Persons most liable to them—Causes—Treatment, during the fit, in the intervals.

HYSTERICIS consist in a convulsive struggling, alternately remitting and increasing, with a sense of a suffocating ball in the throat; drowsiness, copious discharge of pale urine, rumbling in the bowels, and fickleness of temper.

The hysteric fit often takes place without any previous warning, though generally there are some precursive signs, as yawning, stretching, dejection of spirits, anxiety of mind, sickness at the stomach, palpitation of the heart, and sudden bursts of tears, without any assignable cause. The paroxysm soon succeeds, with a coldness

and shivering over the whole body, and frequently with an acute pain of the left side, and a sense of distension, giving the idea of a ball or globe rolling about in the abdomen, and gradually advancing upwards until it gets into the stomach: thence removing to the throat, it occasions the sensation of an extraneous body lodged there. The disease having arrived at its height, the patient appears threatened with suffocation, she becomes faint, and is affected with stupor and insensibility; whilst, at the same time, the trunk of the body is twisted backward and forward, the limbs are variously agitated, and the fists are closed so firmly, that it is difficult, if not impossible, to open the fingers: wild and irregular actions follow, in alternate fits of laughter, crying, and screaming; incoherent expressions are uttered, and sometimes a most obstinate and distressing fit of hiccough takes place. The spasms at length abating, a quantity of wind is evacuated upwards, with frequent sighing and sobbing; and the patient, after appearing for some time quite spent, recovers the exercise of sense and motion, without any other feeling than a general soreness, and a pain in the head. It is rarely that an hysteric fit becomes dangerous; it has, however, in a few instances, terminated in epilepsy or insanity.

Hysteric affections occur much more frequently in the unmarried than in the married, and most commonly between the age of fourteen and that of thirty-five years; and they make

their attack oftener about the period of menstruation than at any other time. Women of a delicate habit, and whose nervous system is extremely sensible, are those most subject to hysterics; and the habit which predisposes to their attacks is acquired by inactivity and a sedentary life, grief, anxiety of mind, late hours, dissipation, a suppression or obstruction of the menstrual flux, excessive evacuations, intemperance, an unchaste life, and the constant use of a too stimulating or an unnutritious diet. They are readily excited in those who are subject to them by passions of the mind, and by every considerable emotion, especially when the effect of surprise; hence sudden joy, grief, or fear, are very apt to occasion them. They have also been known to arise from an accidental irritation of the stomach, bowels or other internal organs affecting the nervous system sympathetically.

In regard to the treatment of hysterics: this may be divided into that which is proper during the fit; and that demanded in the intervals, to prevent its return. During the fit, it will be the safest practice to rouse the patient by applying burnt feathers, assafœtida or smelling salts to the nose; by rubbing the temples with ether, and by putting the feet into warm water. In obstinate cases, cold water may be dashed over the limbs, and a purgative injection administered: a clyster of cold water alone has been effectual in putting an end to the fit.

If the patient be young, robust and full of

blood, and the attack of a recent nature, from ten to sixteen ounces of blood may be taken from the arm; but in very weak and delicate constitutions, or where the disease has been of long standing, taking blood from the arm would be often improper. In these cases, however, cups to the temples and back of the neck and along the back bone, will be found advantageous. Whenever the hysteric fit is very violent, the application of cups to the head, followed by cloths wrung out of cold water, and mustard poultices to the extremities are not to be neglected.

In the intervals of the paroxysms, the object is to restore the healthy action of the stomach and bowels, and to strengthen the whole constitution. Every remote or exciting cause is to be sedulously avoided. Active exercise is to be taken daily in the open air. The diet should consist of light nourishing food. These, with early rising and cheerful company, are the principal means of invigorating the body and mind, and thus effecting a radical cure of hysterics.

The warm bath, with frictions over the whole surface of the body, will in all cases be useful; a visit to the mineral springs and the cautious use of the waters are often advantageous.

When hysteric affections are connected with a suppression or obstruction of the menses, the means recommended when speaking of these affections should be adopted.

Anodynes and antispasmodics, as opium, musk, castor and valerian, together with a long list of tonics, are often had recourse to in this complaint, but they are all of very doubtful advantage, and often injurious.

The tincture of meadow-saffron has occasionally succeeded in curing obstinate attacks of hysterics; and from its acknowledged power of allaying pain and nervous irritation, it may be considered a valuable remedy in many cases. Used as a palliative to put an end to the actual fit, a tea-spoonful may be given, in water, and repeated to the second or third time, if necessary: and when employed, in the intervals, with the view of obtaining a radical cure, thirty drops may be given twice a day. In its power of affording present relief, it seems to be superior to assafoetida, or any of the antispasmodics in common use, and much safer than opium. It should not be continued for any length of time; in general, not longer than three or four weeks at one time. Cups along the spine, and rubbing this part with an ointment composed of simple cerate and tartar emetic, are often attended with the very best effects.

Regular exercise on horseback, variety of scene, and early rising are particularly desirable. The diet should be nourishing, such as is recommended in dyspepsia.

PART FIFTH.

DISEASES OF INFANTS.

DISEASES OF INFANTS.

WHEN children are properly nursed; supplied with food of a proper quality and in quantity adapted to the wants of the system; when they are kept in a pure and fresh atmosphere; and are neither allowed to suffer from cold, nor oppressed with heat; when their bodies are preserved strictly clean by frequent bathing in warm water, and their clothing is light and loose; and they are allowed their natural amount of repose: they will be found to suffer from few diseases; provided always they are born of healthy parents, and with bodies not suffering from congenital disease or debility. Never should medicine be given to an infant unless it is labouring under some decided malady. Slight deviations from health can always be readily removed by a proper attention to the diet, exercise and cleanliness of the infant and

nurse, by the use of the warm bath, and by exposure to fresh and wholesome air. The too common practice of overlooking the evident causes to which the diseases of infants are to be attributed; the indolence, perhaps prejudice, which prevents the necessary reformation in the plan of nursing; and an inconsiderate resort to active and pernicious remedies for the most trifling ailments; have produced almost as great a destruction of life during infancy, as the diseases peculiar to that period of life.

RETENTION OF THE MECONIUM.

THE dark-coloured viscid matter accumulated, sometimes in great quantities, in the bowels of new born infants, is called meconium. It is usually discharged soon after birth, or is brought away in the course of a few hours by the purgative property of the first milk which the child sucks from its mother's breast. Occasionally, however, it is retained for several days, giving rise, by irritating the lining membrane of the bowels, to various unpleasant symptoms. A little molasses and water, or a tea spoonful of melted butter will very generally be sufficient to procure its evacuation. Should these simple means fail, a spoonful of castor oil or an injection of warm water should be resorted to. The warm bath and gentle frictions over the belly of the infant will likewise be of service.

EXCORIATIONS OF THE SKIN, OR CHAFING

THESE are in almost every instance the effect of carelessness and bad nursing. Let every part of an infant's skin be properly washed with warm water, and then completely dried with a soft cloth, especially in the folds of the groins, neck and arm pits, and let due attention be paid to keep its clothes clean and dry, and chafing or excoriation of the skin will rarely occur. When it has taken place, dusting the parts after washing with a little powdered starch or prepared chalk, is all that is necessary to be done to prevent further mischief and cause the fretted skin to heal.

COSTIVENESS.

THE bowels of some infants are slower than others, without, however, implying the presence of disease, or giving rise to any inconvenience. In such cases all interference on the part of the nurse is improper. In general it is desirable that an infant's bowels should be freely opened once in the twenty-four hours. If a longer period than this elapses without an evacuation taking place, and the infant appears to be in pain or is affected with vomiting, a tea-spoonful of castor oil or melted butter, a suppository of yellow

soap or an injection of warm water should be administered, and repeated according to circumstances. Costiveness will often be induced by improper food, or, if the child is exclusively confined to the breast, by some peculiarity of the mother's milk, arising perhaps from the nature of her diet; the removal of such causes should always be attended to, and the repeated administration of purgatives as much as possible avoided. The use of composing drops to induce sleep or quiet restlessness in an infant is often the real but unsuspected cause of a costive state of the bowels; which is another powerful proof of the injurious effects of such remedies.

COLIC—GRIPING.

COLICKY and griping pains of the bowels constitute a troublesome and distressing complaint to which infants who are improperly nursed and fed on unsuitable food, or who are allowed to eat too much, are peculiarly liable. Besides the errors in diet already referred to, colic is often caused in infants by exposure to cold or to an unwholesome atmosphere, by neglect of cleanliness in their persons and clothing, and not unfrequently by improper food eaten by the mothers or nurses, or by other imprudences committed in the regimen of the latter. When the irritation of the bowels produced by these causes is very considerable, or frequently re-

peated, it may give rise to convulsions or terminate in inflammation. Ordinary attacks of colic demand for their removal a dose of oil or magnesia, the warm bath and frictions to the abdomen with warm sweet oil, in which a few grains of opium have been intimately rubbed; oleaginous and mucilaginous injections will also often be found advantageous. In full blooded robust children, the pains being violent and long continued, the skin warm and dry, and the belly painful upon pressure, indicated by the child springing and screaming when the hand is applied to it, the judicious application of leeches to the abdomen will be demanded. The treatment of a severe attack of colic, let it be recollected, always requires very considerable medical skill, and should not be attempted without the advice of a regular practitioner. A careful avoidance of the exciting causes of the disease is all important; and as it most frequently originates in errors of diet on the part of the infant or nurse, or the bad quality of the breast milk of the latter, these circumstances should demand particular attention. The common nursery prescription for infantile colic, of laudanum, paregoric, or carminative and various other empirical compounds of which opium, in uncertain proportions, constitutes the active ingredient, cannot be too severely reprobated these remedies often do more harm than the disease itself, and not unfrequently convert a trifling affection into a severe and even fatal dis-

ease. Gin, also, and other spirituous liquors are sometimes given to infants labouring under colic. Humanity shudders at such reprehensible conduct: it might justly be termed, a breach of moral rectitude on the part of the parent or nurse.

FLATULENCY.

FLATULENCY in infants may be attributed to the same causes as those which produce colic. Its removal can only be effected by restoring the stomach and bowels to their healthy condition, by a proper diet, cleanliness, and pure air; and, if costiveness be present, by gentle laxatives, the warm bath and frictions to the abdomen. Spice teaz, stimulating drinks, and other heating prescriptions should never be resorted to; they are always productive of injury.

HICCUGHS.

NEARLY the same statement as above may be made in relation to this disagreeable though seldom dangerous disease, to which infants are sometimes subject. Hiccoughs are generally produced by an overdistended stomach, by acidity of the bowels, or by wind. Their treatment is similar to that for flatulency.

RUPTURES.

A PROTRUSION of the bowels, beneath the skin at the navel, in the groins, or into the scrotum of males, forming an external tumour at these situations, sometimes exists at birth, or occurs soon after: it should never be neglected. By proper management, which can be directed only by a physician, commenced at an early age, the child may be relieved from an inconvenience and imminent danger, which he would otherwise be subject to all his life.

JAUNDICE.

THE skin of some children soon after birth has a yellowish tinge, which generally disappears in a week or ten days; the whites of the eyes do not partake of the yellow colour, nor is the urine tinged by it. The stools are often of a yellowish or dark green colour. This yellowness of the skin cannot be considered a disease, nor does it demand any particular treatment. It would seem to be occasioned by the gradual change of the ordinary red hue of the infant's skin at birth to the natural tint. Genuine jaundice, characterized by yellowness of the skin and eyes, bilious urine, and light or clay coloured stools, is of very rare occurrence in infants.

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When it does occur it is sometimes a very serious and unmanageable disease. The child is affected with frequent vomiting, flatulence, extreme languor, and a great tendency to sleep. The removal of the disease is to be attempted by the administration of from a quarter or a half to two grains of calomel, according to the age of the child, rubbed up with a few grains of magnesia and sugar, and followed in a few hours by a tea-spoonful of castor oil; by the frequent use of the warm bath; and confinement to the breast milk, or a simple, light and un-irritating diet if the child is weaned: fresh air and exercise are also demanded. The repetition of the calomel and oil must be governed by the effects of the previous dose and the circumstances of each case. The advice of a physician cannot in this affection, be dispensed with.

SORE EYES.*

INFANTS are very subject to a soreness or a slight inflammation of the eyes, a short time after birth. It is generally occasioned, by exposing the eyes too much to the light, by smoke, or by exposure to cold. When the complaint is slight, avoiding the exciting cause, and washing the eyes frequently with cool water, an infusion of common tea, rose water or weak lead water, is often sufficient for its removal. But when the inflammation continues or is of

* In all affections of the eyes consult an oculist at once, if there be one near at hand, as loss of time is often very dangerous to sight.

any extent, the application of leeches to the affected eye is indispensable. When the edges merely of the eyelids are affected with soreness, anointing them with a very little weak citron ointment at bed-time, will generally remove the complaint in a few days.

PURULENT OPHTHALMY.

PURULENT inflammation of the eyes of infants, so called from the copious discharge of matter by which the inflammation is attended, is a most violent and serious disease. If not treated in a judicious manner so as promptly to arrest the violence of the inflammation, it will very commonly produce an entire and irremediable destruction of sight. Infants are sometimes seized with this disease of the eyes almost immediately after birth, and commonly within the first week or ten days. It commences with a swelling of the eyelids, the inner surface of which is intensely red, thickened, and of a velvety appearance; the child becomes very irritable from the pain and itching by which the inflammation is accompanied, and the eyes cannot bear the stimulus of light; the redness soon extends over the white of the eye, and a fresh discharge of matter takes place. The eyelids are permanently closed, and their edges adhering causes the matter to accumulate to a considerable extent within them. When they are forcibly

opened, a gush of light straw or green coloured matter takes place, their red and thickened lining membrane protrudes, and the ball of the eye is with difficulty brought into view. This disease demands the most vigorous and judicious treatment in order that the destruction of the eye may be prevented. Leeches in sufficient number must be applied and repeated according to the violence of the existing inflammation. The eye must be washed out frequently by injecting between the lids an infusion of sassafras pith or a stream of warm water. Blisters should be applied behind the ears, and the bowels should be acted upon by some brisk purgative: as the inflammation subsides, the eye can be washed as above with some mild astringent fluid. As the swelling of the eyelids diminishes, and they assume a more natural and healthy appearance, the washing is to be gradually diminished, taking care for some time not to expose the eyes to a strong light. Such is the outline of the treatment required by this formidable disease: its details must be left to the physician, whose services should be early obtained.

ERUPTIONS.

THE eruptions or breakings out on the skin, to which children at the breast, especially during the first months, are so very liable, would appear in the greater number of instances to be

occasioned by some irritation of the stomach from improper feeding; an intimate connexion and sympathy existing between the stomach and skin in infancy, by which a diseased condition of the latter is readily produced by whatever offends the former. Eruptions and blotches on the surface are also liable to be caused by impure air, and neglect of cleanliness. The means of avoiding their occurrence is therefore very evident. The principal of these eruptions are:—

The *red gum*, consisting in an efflorescence of small red spots on the skin, usually about the face or neck, but sometimes extending to the hands, thighs, and other parts of the body. Now and then there are small pustules filled with a limpid or yellowish fluid. The *yellow gum* differs in nothing from the former excepting in the colour of the pimples. The *milk blotch* consists in large patches of thick scales, commencing with little white blisters which gradually increase in size, and rupture. They are mostly confined to the forehead and face, but sometimes extend over the greater part of the body. The *hives* are large, slightly raised blotches of a pale red, which appear often over the entire surface suddenly, and as suddenly disappear; they are often attended with heat of the skin, and a sense of smarting or itching. Infants are, also, liable to other eruptions resembling measles, nettle rash, &c. which it 's not necessary here to describe. All these

eruptions are attended with very little danger. Their cure is to be effected by keeping the child on a light unirritating diet—regulating his bowels, if these be costive or irregular, by a dose of magnesia or castor oil preceded or not, according as circumstances may demand, by a grain or two of calomel; keeping the infant's body cool, but at the same time avoiding exposure to cold or damp; causing it to breathe a wholesome atmosphere, and immersing it daily in the warm bath. Ointments, salves and medicated washes never do good, but often harm. Even the favourite prescription among nurses of hot saffron tea should be forbidden—cool toast water or weak balm tea is far preferable.

SORE EARS.

ULCERATION of the skin behind the ears is very common in children of gross and irritable habits about the period of teething; it may occur earlier, however, from overfeeding and neglect of cleanliness. A common prejudice prevails, that these sores are salutary, and that to heal them up is attended with danger. Neither, however, is true. No harm will arise from checking them by judicious treatment; and on the contrary, when allowed to increase, they form disagreeable and irritable sores, often attended with danger to the child, besides establishing a constant *issue*, which long continuance

may render at last necessary. The best treatment for these sores is to confine the child to a plain unirritating diet, to wash the ulcers daily with a little soap and water, and afterwards to dress them twice a day with the simple cerate or mild citron ointment spread on a soft rag. When very irritable and giving discharge to a thin bloody matter, the sores will quickly improve in appearance if washed with a weak solution of the nitrate of silver. The bowels of the child should be kept open by small doses of a mild purgative, as magnesia, Epsom salts, or castor oil.

SCALD HEAD.

THIS is at once a very disgusting, troublesome and obstinate complaint provided it be neglected on its first appearance, but it is one readily cured if attended to in time. It makes its appearance on the scalp, forehead and neck, in form of irregular patches, on which arise a number of yellowish pustules. On bursting, these discharge the matter they contain and form scabs, upon removing which the parts underneath appear red and shining. The hair at the part affected becomes lighter and drops off. The itching produced by this complaint is generally very great; the child, by scratching, breaks the pustules, and in consequence communicates the disease to the parts not before affected. The scald head may

arise spontaneously in children of a gross habit of body, who are fed on rich unwholesome food, who are deprived of sufficient exercise and pure air, and whose heads are kept too warm and not sufficiently clean; it is also often communicated by contagion from using the same towels, combs, caps, &c. As soon as the disease makes its appearance, the hair should be cut off as near to its roots as possible, and the head washed twice or thrice each day with warm water and castile soap. If the scalp is very tender and covered with thick hard scabs, a soft bread and milk poultice may be applied over the parts on which the disease is seated, and a small quantity of citron ointment should be rubbed in night and morning.

An occasional dose of one or two grains of calomel, and three or four of magnesia followed by castor oil should be given: the washing of the head being still continued and the child put upon a light farinaceous diet with milk; all animal food, crude vegetables, spices and stimulating liquors being forbid. The warm bath, pure air, and daily exercise must not be neglected. In this manner a cure is generally effected in a short time. An ointment composed of the tar ointment one ounce, and corrosive sublimate two grains, well mixed together has been found very successful in some cases; and by many practitioners an ointment is strongly recommended made by reducing common salt to a white powder by holding it in a shovel over

the fire and then intimately combining it with fresh butter.

THRUSH—APHTHÆ, OR THE INFANT'S SORE MOUTH.

THE thrush is so common an affection of infants, that mothers and nurses are apt to imagine every child must necessarily experience it at some period or other—it has even been viewed as a disease beneficial to the child; neither opinion, however, is true. It may be traced, in the great majority of cases, to a bad condition of the mother's milk, to impure air, to feeding the child too much or on improper food, to a defect of cleanliness, or to exposure to cold and dampness. The ulcerations commence about the angles of the mouth in the form of minute white specks, which finally spread over the tongue, inside of the cheeks, and throat, becoming gradually larger; as the crusts fall off the parts beneath bleed freely and form often large ulcers which occasionally assume a dark or livid hue. The ulcerations sometimes extend through the whole of the bowels. In light cases there is no fever, and only a slight disturbance of the bowels with green stools; but in severe cases, there is considerable fever, vomiting, frequent griping and acrid discharges from the bowels, hiccup, stupor and other bad symptoms. In the treatment of aphthæ, the first important step is to

place the child upon a proper diet. It should, if not already weaned, be confined to the breast milk of its mother, or in case her milk is suspected to be of a bad quality, to that of a healthy nurse. If it has been weaned, let it be confined to fresh rennet whey, or to toast, gum or rice water sweetened with loaf sugar. Exposure to a fresh, dry and pure atmosphere, of a comfortable degree of warmth, is all important, as is also strict personal cleanliness and the daily use of the warm bath. In the generality of cases these means with the local application of borax to the mouth, will be all that is required. The ordinary plan of dissolving the borax in sage tea and rubbing it into the mouth with a rag, is highly injudicious: the best plan is to powder together equal parts of borax and loaf sugar; a small quantity of which in its dry form is then to be thrown into the mouth every two or three hours. The powder dissolving in the saliva is by the natural motions of the tongue and lips applied to every part of the mouth. If the bowels are much disturbed and the evacuations green and frothy, a dose of magnesia in milk may be administered. In more violent cases of sore mouth with deep ulcerations of an unhealthy aspect; the best local application will be a weak solution of nitrate of silver in water. Repeated doses of purgatives are highly improper. When the bowels are very open, the stools being thin and attended with severe griping, an injection of thin starch and olive oil with

the addition of a few drops of laudanum will be advantageous. In all severe cases the advice of a physician should be considered indispensable.

SNUFFLES.

THIS disease consists in an inflammation of the nostrils, and though generally viewed as a very trifling affection, is nevertheless always productive of much uneasiness to the infant, and in some instances produces troublesome ulcerations inside the nostrils, or the inflammation extending to the throat, gives rise to extensive swellings and suppuration of the glands in that part, and destroys the life of the little sufferer. The lining membrane of the nose in early infancy is so susceptible of irritation, that it becomes inflamed upon the slightest exposure to cold or dampness. It is not uncommon to hear an infant sneeze soon after birth, in consequence no doubt of the sudden transition from a warm medium to the cold atmosphere. Snuffles are most prevalent in cold, damp and changeable weather. The first apparent symptom is sneezing; on examination the nostrils will be found to be more or less dry and swollen—sometimes the swelling is so great as to prevent the free passage of the air through them; respiration being carried on solely by the mouth, the voice becomes hoarse in consequence and otherwise altered in sound. A copious discharge of a thin watery fluid now

takes place from the nostrils, which, in the course of a few days, changes to a thick whitish mucus, which gradually becomes more consistent and of a yellowish hue. The child appears heavy and dull: when put to the breast, in consequence of the closure of the nostrils, and the breathing through the mouth being suspended by the act of sucking, a sense of suffocation is occasioned, and the child is prevented in this manner from receiving sufficient nourishment; hence, unless fed by the spoon, it in consequence may suffer from inanition. Sometimes the infant sleeps constantly; irritation of the brain to a considerable extent and convulsions occasionally occur. As the disease begins to decline, the secretion from the nose will gradually lessen in quantity and consistence; the child breathes more readily through its nose, and in a few days the healthy condition of the parts is perfectly established. In slight cases little is required in the way of medicine: the bowels should be gently moved by a dose of oil; the body of the little patient should be preserved of a mild and equal temperature; it should be immersed in the warm bath, morning and evening, and may take occasionally a few spoonfuls of rennet whey or toast water of tepid warmth. In more violent cases, the application of a leech or two between the nostrils will be requisite; or, if the throat becomes affected, under the jaw on each side. A small blister to the nape of the neck may be found useful, and internal small doses of calomel, ipecacuanha

and magnesia, or of calomel, nitre, and powdered digitalis, will be of advantage in scrofulous children.

VOMITING

VOMITING in infants, when not the symptom of a diseased state of the stomach, is almost always occasioned by overloading the stomach with food, or by the irritation of some improper article that the child has eaten. Care in avoiding the exciting cause is all that is required in such cases. When vomiting does not cease after the removal of the offending cause, three grains of carbonate of magnesia, with a grain of pepsin and some powdered anise-seed, may be given 2 or 3 times a day; the child may also be immersed in a warm bath, and the region of the stomach rubbed with an anodyne liniment, or covered with a spice plaster

BOWEL COMPLAINT, OR DIARRHŒA.

FEW children are so fortunate as to pass through the period of infancy without experiencing more or less of a bowel complaint. So susceptible is the digestive canal in early life; so readily is it affected by impressions made directly upon it, or upon the surface of the body: that the least error in diet; the smallest change occasioned in the mother's milk, from

an improper regimen on her part, or any violent affection of the mind; a few moments' exposure to cold and dampness; an imperfect attention to preserving the skin from the accumulation of filth; or any neglect to maintain the proper ventilation and purity of the air which the infant breathes, very generally give rise to an irritation of the intestinal canal resulting in diarrhœa.' About the period of teething, as we have already remarked, a looseness of the bowels very commonly occurs, in consequence of the irritation being transmitted from the gums to the lining membrane of the intestines. The numerous varieties into which the bowel complaints of infants have been divided by writers, founded mostly upon the different appearances assumed by the discharges, deserve very little attention. All that is necessary to be attended to is the degree of irritation existing in the mucous or inner membrane of the intestines; the extent to which this irritation has caused the latter to deviate from its healthy condition; and the facility with which this irritation is propagated from it to the brain and other organs. Diarrhœa then always depends upon an irritation of the intestines. The irritation may be either transient, ceasing the moment its exciting cause is removed; or permanent, in consequence of a morbid change having taken place in the lining membrane of the bowels. The first gives rise to a very trifling disturbance, which is ordinarily quickly removed by the efforts of nature; the second

constitutes a disease involving often the life of the child. In the treatment of diarrhœa, the first object is to remove and guard against the exciting cause whatever this may have been, and secondly to moderate the irritation of the intestines and cause it to cease. The child, if at the breast, should be confined to it solely, or if the milk of the mother has undergone any morbid change, provided this cannot be at once removed by confining her to a proper diet and regimen, a healthy nurse should be procured. When weaned, the child's diet should be precisely that directed in treating of Aphthæ (ante p. 265). Its body should be kept of a moderate and equable warmth, and in damp, cold and changeable weather it should be clothed in a loose light dress of soft flannel. If the discharges from the bowels are green and frothy, or have a sour smell and curdled appearance, a few grains of calomel and magnesia may be given; but when they are thin and slimy with occasional streaks of blood, a dose of oil will perhaps be preferable. The propriety of repeating either prescription, must be determined by the circumstances of each case. We would remark, however, that teasing the bowels by repeated doses of even the mildest purgative is always productive of serious mischief. The warm bath night and morning, followed by a spice plaster over the abdomen, are all-important remedies. If the skin of the child be dry, harsh, and hot; if the diarrhœa be attended

with frequent severe griping pains, or if the inclination to stool be constant, and occasion the discharge, after considerable straining, of only a little mucus, and more especially if the abdomen be hot, tense, swollen, and tender to the touch, then ice to the surface of the abdomen, or warm narcotic fomentations, will be demanded. When the discharges from the bowels are profuse, and the inclination to stool almost incessant, the utmost advantage will be derived from bland, mucilaginous, or oily injections, with or without the addition of a small portion of opium: thin made starch, flaxseed-tea, olive oil, or oil of sweet almonds, form in these cases the best injections. In many cases of the bowel complaint of children, during particular stages, very minute doses of calomel and ipecacuanha frequently repeated, or of saccharum saturni, opium and calomel will be found advantageous; but as the judicious administration of these demands a very great deal of skill, and as they may injure or even destroy the child when improperly resorted to or too long continued, they should never be given excepting under the direction of a regular physician.

SUMMER COMPLAINT, OR CHOLERA OF INFANTS.

SUMMER complaint is the name generally given to the severe and almost incessant vomit-

ing and purging of a thin watery fluid, with which children under two years of age are liable to be affected, in the middle and southern states, during the heat of summer; and by which a large number of them are annually destroyed. A description of this affection is unnecessary in the present work, so well is it known to the generality of parents in this country, by all of whom it is justly dreaded. The predisposing causes of infantile cholera are evidently the very irritable state of the bowels in early infancy, particularly towards the period of teething, and the influence of the heated, impure and confined air of our larger cities and of certain localities in the country, by which the irritability of the bowels is still further increased. Its exciting causes are improper nursing, errors in diet and clothing, difficult dentition, imprudent exposure to a damp and cool atmosphere, personal filth, the abuse of purgatives and other remedies. The disease prevails most extensively among the children of the poor who live in unwholesome dwellings or locations. It may almost invariably be avoided by proper nursing; by removing the child to a cool and pure atmosphere before the heats of summer commence, and by a careful avoidance of the exciting causes already enumerated. In connection with this subject the reader is referred to our chapter on the Exercise of Infants for an account of the different means by which a child may be enabled to enjoy the advantages of cool, fresh and

wholesome air (see page 187). The treatment adapted to an ordinary case of infantile cholera is the same as that recommended in our last chapter for diarrhœa. Removal from the heated and impure air of the city, let it be remembered, is indispensable; without it a permanent cure can scarcely be anticipated.

PROLAPSUS ANI.

PROLAPSUS ani, or a *falling down of the fundament*, is often met with in children of a relaxed habit, and in those who have been much afflicted with severe purging. It is also a frequent consequence of irritation of the rectum, arising from the presence of thread-worms within the gut.

In this affection much advantage has been often experienced from astringent injections, particularly an infusion of galls or oak bark; a small proportion of opium added to the injection tends greatly to lessen the irritation in the extremity of the gut and prevent the falling down of the latter. The projecting parts should always be replaced the moment they are protruded, or an inflammation and thickening which will prevent their replacement is very apt to occur. To effect the reduction, the protruded gut should be well fomented with a decoction of poppy heads or flaxseed tea, and anointed with fresh olive oil; after which a gradual and gentle compression is to be used to reduce and place it within the anus.

During the operation the child is to be laid on its back, with its thighs widely distended and its hips raised. In children it is often difficult to reduce the last folds of the intestine if the finger is pushed through the orifice, for when this is withdrawn the gut slips down. A piece of paper in the shape of an extinguisher or funnel moistened and oiled, placed on the point of the fore finger, to push up the last portion within the anus, will slip out easily without bringing down the gut with it. A piece of sheep's gut distended with air, is sometimes used to press up the protruded parts. when the air is let out of the distended gut, it may readily be brought away without the prolapsus recurring.

The child should not be permitted to strain, nor to take the usual position at stool. It should be kept in an erect posture, and the hips held together by an assistant, so as to compress and support the gut during the evacuation. With a view to strengthen the parts, cold water dashed over the back and buttocks has been found useful.

INWARD FITS.

YOUNG infants are often affected with slight spasmodic twitchings of the muscles particularly of the face, to which the name of inward fits has been popularly applied. The infant's sleep is imperfect and disturbed, and it frequently

awakes crying, and apparently much agitated; at other times it lies in a state of imperfect sleep, with its eye-lids half open and eye-balls rolled upwards. Its breathing is soft and almost inaudible; the muscles of the nose and mouth are slightly convulsed, giving the appearance of a smile or an approaching laugh. The face sometimes changes repeatedly from a pale to a livid hue, particularly under the eyes and about the mouth. These inward fits, as they are termed, may almost always be referred to the presence of wind in the stomach and bowels, the expulsion of which gives almost immediate relief; or they may be produced by some slight irritation of those organs. For the removal of this affection, all that is necessary is to take up the child if it does not immediately awake, to tap it gently on the back, and rub its stomach and abdomen well with the hand before the fire. This will generally cause an expulsion of wind, and the child will then fall quietly to sleep again. To prevent a recurrence of the symptoms, a dose of magnesia in a little cinnamon or aniseed water may be given, and strict attention should be paid to the infant's diet and regimen.

CONVULSIONS.

THE immediate cause of convulsions in children is an irritation or inflammation seated in the brain or spinal marrow. When convulsions

depend upon a simple irritation of these parts, this is very often the result of an irritation existing in the stomach and bowels, or in some other portion of the system, and transmitted sympathetically to the organs first mentioned. Thus improper food, an overloaded stomach, the irritation of retained feces or worms in the intestines, the irritation of the gums in difficult dentition, are frequent causes of convulsions. They may also be induced by the infant being subjected to the influence of a confined and unwholesome atmosphere. In nearly all these cases an early removal of the exciting causes is sufficient very speedily to put a stop to the convulsions. When, however, those causes have been of long continuance, and the irritation has been repeatedly transmitted to the brain or spinal marrow, an inflammation of these organs may be produced, in which case the convulsions will be much more difficult to control, and often under the best devised treatment will terminate fatally. Convulsions may likewise be induced by causes directly affecting the brain and spinal marrow, as exposure to intense heat or to cold, blows and falls upon the head, violent paroxysms of crying, fright, the abuse of anodynes and other active remedies, &c. Some children are more predisposed than others to convulsions from slight causes, and this predisposition may very generally be traced to improper nursing. During the presence of a fit, the remedies are, cupping, leeching, and cold applications or ice

to the head, immersion of the feet in hot water, followed by mustard plasters to the ankles, and give injections of *asa foetida* one drachm, fluid extract of valerian one drachm in five or six oz. of water, one-third at a time, and repeating every half hour. Blisters to the nape of the neck will often be advantageous. In some cases, the warm bath is likewise productive of good effects. If the gums are red and swollen, they should always be freely lanced. While the fit lasts the infant should be supported in an upright posture, all ligatures being removed from about its neck, body and limbs. To prevent a recurrence of the fits attention must be paid to restore the stomach and bowels to their healthy condition; to allay completely all irritation in the brain and spinal marrow, and to avoid carefully every exciting cause.

CROUP.

THIS fearful and destructive disease is produced by exposure to a cold and damp atmosphere, or by an imprudent style of clothing which leaves exposed the arms, shoulders and breast of the infant. The little patient is first seized with shivering, restlessness and a difficulty of breathing, which rapidly increases, and is accompanied with great heat of the skin, flushing of the face and other symptoms of fever; and a cough of a peculiar barking

hollow sound, as if air were transmitted in a broken and violent manner through a brazen tube. The child throws back its head in the height of the disease, to favour respiration and escape impending suffocation. Respiration is not only interrupted by frequent convulsive fits of coughing, but has often a hissing sound as if the windpipe were in part obstructed by some soft substance. A degree of swelling and soreness of the throat generally takes place by which swallowing is rendered painful and difficult. As the disease advances, the face becomes swollen and livid; the eyes protuberant and wild in their expression; the respiration becomes more shrill and difficult, and is performed at longer intervals. The cough is commonly dry; but sometimes thick purulent-looking matter is spit up, or shreds of a membranous appearance.

The moment a child is seized with a hoarse croupy cough and difficulty of breathing, without the least delay a pretty active emetic either of tartarized antimony, ipecacuanha or any safe emetic substance that can be the most readily obtained should be given; ice water compresses should be constantly laid on the neck. If the emetic does not take effect, then give chlorate of potash and tr. of chloride of iron in solution every 15 minutes. Cold water, poured slowly down the spinal column from a sufficient height, is often very beneficial when the emetic will not take effect. The emetic and ice are often sufficient, if early resorted to, completely to arrest all the symptoms of a

slight attack. If, however, the relief is only partial, a physician should be sent for without delay, who will direct the application of a sufficient number of leeches to the throat, and the swabbing out the throat every 15 or 30 minutes with a solution of nitrate of silver or chlorate of potash, of the strength of 2 drachms to 3 ounces of water. He will perhaps find it necessary to continue the use of tartar emetic in small nauseating doses, or to resort to the mercurial remedies. If the symptoms persist, and he finds it unadvisable to draw more blood by leeches, he will in many cases order the throat to be covered with a blister. Such are the outlines of the treatment demanded by a case of croup, and which, if promptly and judiciously carried into effect, will in a large number of cases save the child from a painful and speedy death. Delay in resorting to proper remedies, and timidity in their application, will be equally fatal; and if nothing helps, the operation of opening the wind-pipe may be necessary.

WORMS.

WORMS are less often the source of disease in children than is popularly imagined. In the generality of cases, the symptoms ordinarily referred to their presence are produced by an affection of the stomach and bowels and perhaps of the brain, entirely independent of the existence of worms, and which the remedies so commonly resorted to by parents and nurses,

including the long list of vermifuges supplied by the quacks, to cause their expulsion, cannot fail seriously to aggravate. We pretend not to say, that worms are never the cause of inconvenience or of disease in children; but we do maintain that children will seldom if ever be troubled with them who are fed upon a wholesome and properly regulated diet; who are at the same time well nursed; exposed constantly to a fresh and wholesome atmosphere; defended from the effects of cold and moisture; and kept strictly clean. It is when the bowels have become weakened by disease, that worms are generated, and the mischief they occasion, when they do exist, is from the irritation they excite upon the lining membrane of the intestines, already brought to a state of morbid irritability, by the action of certain morbid causes to which the child has been subjected. The safest and indeed the only effectual means for destroying worms is evidently, therefore, such a diet and regimen as are calculated to restore the stomach and bowels to their healthy state, in conjunction with remedies that act by reducing the morbid irritability of these organs; as for instance, leeches to the abdomen, the warm bath, emollient fomentations, &c. When, however, alarming symptoms, as convulsions, a state of coma or insensibility, spasmodic twitchings of certain muscles, a convulsive cough, or slight delirium, are fairly attributable to the irritation caused by worms upon a morbidly excitable intestine; the

immediate removal of the worms is then all important. Probably, the most certain means to effect this will be a dose of *santonine* followed by a spoonful of castor oil alone or combined with a few drops of spirits of turpentine. But against the free and continued use of these articles when no violent or urgent symptoms are present, as well as against the use generally of any of the irritating and drastic purgatives, or substances supposed to operate as poisons to the worms, so commonly resorted to, we most loudly protest. They always prevent a sufficiently early resort being had to the course of treatment demanded by the actual complaint under which the child labours, and, of themselves, not unfrequently produce serious and permanent injury. We have seen their use pertinaciously persisted in day after day, and although the child evidently grew worse, the infatuated parents would not believe that any thing serious was the matter with the little sufferer, until effusion of water had taken place in the brain and medical aid was no longer of any avail.

APPENDIX.

ASIATIC. OR EPIDEMIC CHOLERA.

ASIATIC, OR EPIDEMIC CHOLERA.

As an epidemic, Cholera first made its appearance in Bengal during the month of August 1817. Since that period it has continued to prevail, with scarcely any intermission, up to the present time, spreading itself over nearly the whole of India and the rest of Asia, over a part of Africa, and over a considerable portion of Europe. In 1832 it broke out in the Canadas, and visited successively nearly all the larger cities of the United States. By this terrible epidemic, provinces have been ravaged, and districts depopulated; entire garrisons have been destroyed, and victorious armies arrested in their triumphant progress. Under every point of view Epidemic Cholera claims the attention of every individual, and of every community. Though attended with the most violent symptoms, extremely rapid in its progress, and in relation to the real cause by which it is produced, shrouded in the most impenetrable mystery; yet there are few diseases an attack of which can be so readily and certainly guarded against—while no one is so completely under the control of medicine during its first stages

CAUSES.

Cholera, like all other epidemics, is evidently dependent upon a morbid change in the condition of the atmosphere. What is the actual nature of this change it is impossible to ascertain. By some it is referred to irregularities in the electrical state of the air; others have presumed that the air becomes loaded with poisonous effluvia emitted from the earth; while others restrict its cause to a change in the sensible properties of the atmosphere, in other words, to unusual coldness, heat, moisture or dryness—or to rapid and sudden transitions in these particulars. It is certain, that in most places where the cholera has appeared, it has been preceded or accompanied by violent storms or earthquakes, or by seasons unusually disturbed.

That the disease is in no degree contagious, that it is not capable of being communicated from the sick to the well, is now established by so many positive facts, that it appears unnecessary to enter here into an examination of this point. Its non-contagiousness is proved by the disease appearing, at the same time, at points far distant from each other; while in situations intermediate between these not a single case will occur. Physicians, nurses, and attendants upon the sick, are not more affected by the disease than other classes of persons, nor even in as great a proportion; and individuals who were in hospitals with other diseases, and were seized with cholera, did not communicate the disease to the other patients in their immediate vicinity.

PREDISPOSING AND EXCITING CAUSES.

1st. A vitiated and damp state of the atmosphere. Cholera has always prevailed most extensively and produced the greatest ravages, in those situations ordinarily the most unhealthy, particularly in the vicinity

of low, wet, and marshy districts—along the low, muddy banks of rivers; in crowded towns and villages, and in the hovels of the poor, where a proper ventilation is neglected, and in which all kinds of filth are allowed to accumulate.

2d. A constitution broken down by misery, vice, intemperance or fatigue. In every place where Cholera has made its appearance, the great majority of those attacked have been individuals of the lowest classes of the community; those living in the depths of vice and misery; the habitually intemperate; those who were constantly exposed to fatigue, and to the inclemencies of the weather; and those who, from extreme poverty, are obliged to subsist on unwholesome food, or such as is deficient in nutriment. But few persons in easy circumstances and of temperate lives have been attacked; and in those few, the occurrence of the disease could very generally be traced either to fatigue, to exposure to wet or damp or to the night air, to fear and anxiety, to improper food, as that which is too stimulating, difficult of digestion or flatulent, to fasting too long, to a constitution broken down by disease or a state of convalescency particularly from stomachic and bowel complaints, to the use of impure water, of cold and iced fluids or of iced creams when the body is in a state of fatigue, or overheated, to indulgence in acid drinks, or those which readily become sour in the stomach, as the weaker wines, table beer, cider, &c., to the imprudent use of medicine, especially emetics and purgatives, or to prolonged watchfulness

PREVENTION.

To avoid Cholera, therefore, an individual must live temperately on plain, nutritive food, simply cooked. He must avoid rich, high-seasoned soups and sauces, all made dishes and pastry; of salted provisions he must partake in great moderation,

salted, dried, and smoked fish he must abstain from, as also pork, geese, ducks, crabs, lobsters, and the like. He must avoid all flatulent vegetables, as cabbages, radishes, green corn, dried peas and beans or those difficult of digestion, as mashed potatoes, cucumbers melons, mushrooms, pickles, &c. and likewise all unripe, decayed, or very acid fruit. He must give up entirely the use of ardent spirits, brandied wines, &c. as ordinary drinks: indeed, as a general rule, pure water should be his sole beverage.

Active regular exercise in a free pure air, not carried so far as to induce fatigue; regular and sufficient sleep; the avoidance of crowded assemblies, of the night air, of wet or damp, or extreme heat, or of exposure to cold, without due precaution, are other means essential to be observed, in order to escape an attack of Cholera.

Personal cleanliness, and all the other means calculated to insure the due performance of the functions of the skin, are likewise all important preventives; hence the use of the warm bath daily, or sponging the entire surface with tepid water, followed by brisk frictions, morning and evening, and a flannel or thick cotton garment next the skin, should never be neglected.

The possession of that species of moral courage which is intimately connected with a well informed mind; a reliance upon the goodness and superintending providence of the Supreme Being; and a consciousness of having fulfilled, to the utmost of our abilities, our religious as well as social duties (which, while they prompt us to avoid danger by the use of all practicable and rational means, prevent all unnecessary terror and alarm when the evil is present), have a powerful influence in guarding the system against disease during the prevalence of every epidemic.

The necessity of comfortable, clean and well ventilated dwellings, situated in a dry, elevated and otherwise healthy situation, must be sufficiently

evident to all. When, however, an individual is under the necessity of residing in a low, damp, unhealthy situation, much may still be done to prevent disease, by a proper attention to ventilation, during fine weather; by strict cleanliness; by closing the doors and shutters before night fall; by occupying the upper rooms of the house, and, in very damp weather, by fires in the apartments where the family pass the day, and in the bed-chamber.

SYMPTOMS.

Epidemic Cholera, in regard to its symptoms, may be divided into four stages or periods.

1. THE STAGE OF DIARRHŒA.

This stage is usually accompanied with griping pains in the stomach and bowels; by a sense of lassitude; rumbling of wind in the bowels; frequently, pain and giddiness of the head, and dull pains in the knees and loins. The pulse is various; the tongue is coated with a thin white or yellowish mucus, or thickly furred in the centre and red at the edges. The appetite is diminished; and the thirst increased. There are often shooting pains or stitches through the calves or the legs. The foregoing symptoms are most usually attended with nausea, with frequent watery discharges from the bowels, or with a constant inclination to go to stool without any evacuation taking place, or with only a thin mucous discharge sometimes streaked with blood. This stage may last for several days before the symptoms of the ensuing stage are developed; in many cases the symptoms of the latter appear in a few hours. The occurrence of the second and subsequent stages depends greatly upon the constitution and habits of the patient, as well as upon the circumstance of his having, or not, resorted to proper medical aid. In the debilitated and especially the intemperate, the discharges from

the bowels are not unfrequently from the first very copious, of the appearance of whey, and giving rise to a sense of extreme exhaustion, of faintness or even fainting. In such cases, in a very few hours, cramps, vomiting and collapse are apt to come on; any imprudence in eating or drinking, improper exposure, &c. will also accelerate the occurrence of the second and subsequent stages of the disease.

2. THE STAGE OF SPASM.

This stage is characterized by violent pains of the stomach and bowels occurring at intervals; by pain of the head and back; by almost incessant vomiting and purging of a rice-water fluid; by inordinate thirst and violent spasms, particularly of the muscles of the extremities. The skin still remains warm, but is bathed with perspiration, and has a peculiar doughy feel; the tongue presents nearly the same appearance as in the first stage; the temperature of the hands and feet is reduced; the pulse is often full and of some firmness; in other cases it is very compressible; or again, it is small and contracted. The mental faculties are unimpaired; the countenance is expressive of great suffering or distress. In this stage the secretion of urine is often diminished in quantity or entirely suspended.

3. THE STAGE OF COMMENCING COLLAPSE.

In this stage the skin is cold, livid and covered with a profuse clammy perspiration; the tongue is also cold and livid; and the extremities corrugated as if they had been soaked in water; there are frequent cramps of the extremities; the eyes are sunk, the features contracted; there is constant purging, occasionally accompanied with vomiting; there is pain of the stomach, a small, feeble and depressed pulse, and a complete suppression of the urinary secretion. The mental faculties are still unimpaired. Often considerable heat is felt over the stomach. Great thirst and a constant desire for cool air are almost invariably present.

4. THE STAGE OF CONFIRMED COLLAPSE.

This stage is marked by icy coldness, and a deep blue or purple hue of the skin, tongue and inside of the mouth; the extremities are corrugated; the whole surface is covered with a profuse cold perspiration, which seems to exude in large drops from the pores of the skin. No pulsation can be detected in any of the superficial arteries, and the action of the heart is slow and feeble. Involuntary watery discharges flow from the bowels. The voice is low, husky, and almost extinct. The body exhales a peculiar and very disagreeable odour. There is a short quick respiration, with heaving of the chest. The patient complains of a burning heat in the region of the stomach, and craves without intermission cold water and fresh air; he is extremely restless, or doses with half open eyelids, the pupils of the eyes being rolled very much upwards. Until the very end, the mental faculties continue unimpaired.

TREATMENT.

The treatment of Cholera differs according to the stage of the disease.

1. In the *first stage*, when the patient is young and robust, the skin dry, the pulse frequent and hard, and the griping pains in the bowels constant or severe; a large mustard plaster over the abdomen, and another on the back, will be found of great service. Bathing the feet in warm water, also the application of frictions to the whole of the lower extremities, or mustard poultices to the ankles, will also be decidedly beneficial.

When the diarrhœa is but trifling, a dose of camphor with a few drops of laudanum should be given, and repeated if necessary.

If the discharges from the bowels are very copious, and of a thin, watery and unnatural appearance, a pill of camphor, rhei and opium, repeated at

proper intervals, will often be found very speedily to arrest these discharges, and after a time to procure the evacuation of a very dark, viscid and offensive matter, followed by natural stools.

When the griping and constant inclination to stool are peculiarly troublesome, place lumps of ice continually on the tongue, and an injection of thin starch, olive oil and opium will often remove very speedily the disease. The warm bath is a remedy well adapted to this stage when properly managed.

Attention to diet and clothing is all-important. The patient should be confined exclusively to gum or rice water taken cold and in small quantities at a time; even after the symptoms of the disease have disappeared, the diet should consist for several days of well boiled oat meal gruel, thickened milk, or crackers boiled in milk. A very slight impropriety in diet will often bring back the very worst symptoms of the complaint, and render a cure impossible.

2. When Cholera has reached its *second stage*, there is not a moment to be lost—the least delay on the part of the patient, or timidity in the practitioner will be followed by the most fatal consequences. Give the patient every five minutes a dose of the following anodyne and cordial tincture: Take of aromatic spirits of ammonia, laudanum, chloroform and spirits of camphor $1\frac{1}{2}$ fluid drachms, creosote 8 drops, oil of cinnamon 2 drops, alcohol enough to make 1 oz. of the tincture. Put a tea-spoonful of this in a wine-glass of ice water, and give one tea spoonful of the solution every five minutes until the patient decidedly improves, then lengthen the intervals of doses till the symptoms all abate. This treatment, the result of much experience during the

visitation of the cholera in 1849, 1850, and 1854, has been found very successful.

The limbs of the patient should then be rubbed well with some stimulating liniment: these frictions are to be followed by mustard poultices to the ankles, wrists, thighs and arms. In this stage, particularly at its very commencement, bathing the feet in hot water will frequently be followed by a very good effect.

Internally the patient should take iced water in small portions at a time; or when this is immediately rejected by the stomach, a tea-spoonful of powdered ice may be given every fifteen minutes. After the stomach has become calm and is capable of retaining medicine, the pill of camphor and opium, as directed in the first stage, should be given, and repeated every two, three or four hours according to circumstances.

By this treatment, in a very short period, the vomiting and spasms will be suspended, and the inordinate discharges from the bowels arrested. In many cases a dose of castor oil will now bring away copious stools of a very dark and extremely offensive nature, after which the bowels will return to their natural condition.

It is all important in this stage to prevent the patient from drinking too much; which, in consequence of his inordinate thirst, he will be very apt to do unless carefully watched. The warm and vapour baths do no good, but rather harm in the second stage of Cholera; and the most pernicious effects will in general result, if recourse be had to stimulants, or to inordinate doses of opium or laudanum.

Occasionally it will be found that there is a tendency in this stage to an overloaded state of the vessels of the brain, indicated by drowsiness, dilated pupil, and a dark flushed appearance of the countenance; here, cups to the temples or back of the

neck, with cold applications to the scalp, should never be neglected.

3. When Cholera has reached its *third stage*, to save the life of the patient will demand great circumspection, judgment, and decision on the part of the physician and attendants. The entire surface of the patient should be diligently rubbed either with the hand, or a flannel cloth, wet with a liniment composed of equal parts of spirits of turpentine and a solution of pure ammonia; after the frictions, large mustard poultices should be applied to the arms, wrists, thighs and ankles; and the feet should be enveloped in bags filled with warm bran or sand, and the whole body covered with a blanket.

By the treatment just detailed, the reduction of the symptoms is produced gradually: first there is a cessation of the profuse perspiration; the features then become more natural, the corrugation of the extremities disappears, and finally the livid colour of the skin is removed and the natural temperature of this part is restored.

Throughout the third stage of Cholera the patient should be supplied, at short intervals, with small quantities of powdered ice or of iced water. Even greater caution than in the second stage, will be required to prevent him from indulging his inordinate thirst; to guard him against the use of stimulants, and the too free administration of opiates. In the early period of this stage all kinds of food are to be abstained from: when convalescence has been established, the same remarks in regard to diet will apply as were made in reference to the first stage.

4. When the *period of confirmed collapse* has arrived, little hopes of recovery need be entertained. The patient should be carefully rubbed over the whole body with ice, then dried and wrapped in dry blankets outside of which bags filled with warm bran or bottles of hot water may be applied, and internally give champagne and ice, or rum and Selters water, or one gr. camphor every $\frac{1}{4}$ hour, or spirits of hartshorn one draohm in 6 oz. sugar water, a table-spoonful every $\frac{1}{4}$ to $\frac{1}{2}$ hour. Also rub the body with spirits of mustard, and for the cramps in the calves of the legs rub them with ohloroform and camphor spirits.

As soon as reaction takes place and has been fully established, the treatment should be conducted as in the other stages. In the period of reaction let the patient sleep and perspire freely, and continue giving him Selters water and ice. To arrest the discharges from the bowels, give $\frac{1}{4}$ gr. calomel every 3 hours with or without opium; if vomiting should take place, give small doses of morphia 1-15 gr.,—and a mustard plaster over the stomach; if there is a tendency of congestion to the head, apply cold iced cloths or leeches. After recovery, the patient must naturally be very careful for a long time with his diet.



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